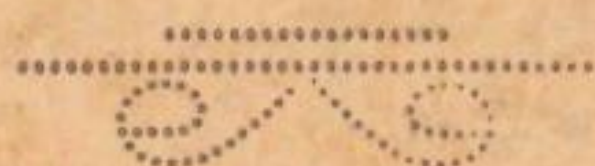


VOL. I. No. 2

1924

THE CALL OF EDUCATION

L'APPEL
DE L'ÉDUCATION



LA CHIAMATA
DELL'EDUCAZIONE

Psycho-Pedagogical Journal
International Organ of the Montessori Movement

EDITED

by

Dr MARIA MONTESSORI

WITH THE COÖPERATION OF

PROF. Dr GÉZA RÉVÉSZ AND Dr J.C.L. GODEFROY



CONTENTS AND PRICE: SEE INSIDE COVER

CONTENTS

- | | | |
|--|-------|---|
| 1. <i>Le caractère de l'enfant</i> }
<i>Child Character</i> | . . . | Dr. M. MONTESSORI. |
| 2. <i>Sensitive Periods.</i> | | Dr. AE. B. DROOGLEEVER
FORTUYN. |
| 3. <i>Intellectual Machinery and Education.</i> | | Prof. Dr. S. R. THOMPSON. |
| <i>Postscript by.</i> | | Dr. J. C. L. GODEFROY. |
| 4. <i>Die Gefahren der Isolierung</i> }
<i>The Dangers of Isolation</i> | . . . | Dr. ALFRED ADLER. |
| 5. <i>Von dem „Hause der Kinder“</i> }
<i>in Berlin—Wilmerdorf</i>
<i>“The Children's Home” in</i>
<i>Berlin—Wilmerdorf</i> | | ELSA OCHS. |
| 6. <i>A question relating to the use of the material, answered by</i> | | Dr. M. MONTESSORI. |
| 7. <i>Echos de nos écoles et de la famille.</i> | | |
| 8. <i>International News of the Movement.</i> | | |
| a. <i>The Montessori Movement in Holland.</i> | | |
| b. <i>From the Introductory Address given by.</i> | | Sir J. CRICHTON—BROWNE,
J. P., M. D., L. L. D. |
| 9. <i>Literatur.</i> | | |

An interesting article from the hand of Dr. M. Montessori, entitled "Discipline: Remarks and Advice", will be published in the following number. ♪ ♪

Le Caractère de l'enfant¹⁾

par

Dr MARIA MONTESSORI.

C'est avec intention que nous avons choisi le titre de: Le caractère de l'enfant. Pour nous „caractère" veut dire: non seulement les traits de caractère moraux, mais il désigne toute la personnalité de l'enfant, qui n'est pas composée de facteurs moraux, intellectuels, physiques, etc. mais qui est une unité et qui ne saurait être analysée que par un travail de psychologue. Nous nous proposons de donner un aperçu général du caractère de l'enfant, de caractériser son activité qui, si souvent est laissée de côté et qui plus souvent encore est mal interprétée.

Supposons que le développement d'un travail soit représenté par des lignes.

Supposons encore qu'une ligne droite représente pour nous l'état de repos. Supposons de nouveau que toutes les lignes tracées en haut figurent un travail ordonné, c'est-à-dire l'ordre, et que toutes celles du bas figurent au contraire un travail désordonné ou le désordre. Regardons un instant ce schéma et, munis de ce guide, imaginons-nous que nous suivons, dans une école, l'action d'un enfant.

Représentons-nous les diverses circonstances: l'enfant entre à l'école; il reste un instant tranquille, puis il prend un travail. Voilà la ligne qui commence à pénétrer dans la région de l'ordre; ensuite il se fatigue et commet des actes désordonnés; la ligne

¹⁾ Conférence donnée par Madame Montessori à Bruxelles et publiée dans „La Femme Belge".

baisse aussitôt dans la région du désordre. L'enfant s'empare alors d'un nouveau travail. Si, par exemple, il a pris en premier lieu les emboîtements solides et s'il prend ensuite les tablettes de couleurs, nous le voyons un instant assidu; mais tout à coup il dérange son voisin, alors la ligne baisse; le voilà qui s'amuse à taquiner ses camarades et s'entretient ainsi volontairement dans le désordre. Après cela il choisit les cloches des notes musicales; il va les faire sonner, il se tiendra tranquille encore un instant et voilà la ligne qui remonte dans l'ordre. Quand il aura fini, il ira importuner la pauvre maîtresse.

Cette ligne pourrait nous fournir une idée des actions journalières dont nous venons de parler; elle nous donnerait également un graphique du travail individuel d'un enfant à l'école.

De semblables graphiques peuvent, d'un coup d'œil, indiquer le développement d'un phénomène prolongé que nous pourrions suivre grâce à une loi, si toutefois il en renferme une.

Mais, dans cette ligne, nous ne voyons pas la loi capable de nous intéresser; c'est le graphique de ces nombreux enfants qui passent d'un travail à l'autre, sans pouvoir fixer leur attention et qui, en une demi-journée, manipulent tout le matériel, qui pourrait suffire à une année de travail. Nous avons devant nous le type de l'enfant désordonné par excellence.

Laissons s'écouler un certain temps et après un intervalle nous revenons au même enfant en qui, depuis quelque temps, s'est produit le phénomène de la concentration, de l'attention.

Je vais dessiner maintenant un graphique représentant à peu près le travail moyen s'opérant chez l'enfant qui n'est plus désordonné, mais qui n'est pas tout à fait ordonné: en quelque sorte, le milieu entre l'ordre et le désordre.

Entré à l'école, l'enfant prend un travail très facile, très reposant pour lui, probablement un des exercices de la vie pratique. Il le laisse pour choisir dans le matériel scolaire un objet familier et répète certains exercices. Nous le voyons alors fatigué, incertain et sa ligne s'abaisse au-dessous de la ligne de l'ordre. Ce phénomène peut se produire non seulement chez un seul enfant, mais dans toute une classe. Que dirait alors

l'institutrice sans expérience? Elle en conclurait que les enfants sont fatigués après avoir fait les exercices de la vie pratique ou avoir travaillé avec le matériel, que le phénomène de concentration ne s'est pas produit mais qu'elle n'y peut rien.

En supposant que cette maîtresse ait bon cœur, qu'elle soit versée dans les principes de psychologie et d'hygiène psychopathologique tant préconisés de nos jours, elle déciderait qu'après ce travail il faut donner aux enfants du repos, suspendre les exercices, les changer de milieu et elle les emmènerait dans le jardin. On verra alors des joueurs désordonnés qui rempliront le jardin de leurs cris et qui, à leur retour en classe, seront encore plus agités qu'avant; ils ne feraient que varier leur travail et cet état de prétendue fatigue se représentera toujours.

Que de maîtresses n'ont elles pas pensé en elles-mêmes: ce n'est pas vrai que le travail libre apporte la paix et la sérénité aux petits enfants; en réalité, je vois qu'ils choisissent librement leur occupation, s'y donnent un instant et toujours se montrent plus agités; j'ai beau les faire se reposer, leur faire changer de milieu, je n'arrive ni à les faire travailler, ni à leur donner le repos!

Ces maîtresses-là ont fidèlement étudié la méthode, mais elles ont manqué de la confiance nécessaire pour respecter la liberté de l'enfant. Elles n'ont pu s'empêcher de raisonner, de recourir à leurs connaissances scientifiques, d'intervenir, de chercher à diriger et, ce faisant, elles ont interrompu le processus du phénomène, elles ont tout bouleversé.

Si, au contraire, une maîtresse se montre respectueuse de la liberté de l'enfant, si elle a assez de confiance en lui, si elle a la force de caractère d'oublier un instant la science dont son intelligence est bourrée et qu'elle puisse se faire assez humble pour ne pas croire son intervention utile, elle aura la patience d'attendre. Alors elle verra éclater le phénomène: après le travail préliminaire, après l'agitation d'esprit qui cherche dans la profondeur de sa conscience que la lumière n'a pas encore éclairée, l'enfant choisit un travail nouveau, difficile pour lui; il y apporte toute son attention, s'y abîme, s'y adonne de toute

son âme; il s'isole du milieu qui l'entoure pendant un assez long temps: c'est là ce que nous appelons le *Grand Travail*.

Lorsque l'enfant a fini, il abandonne l'objet qui fut l'instrument de sa concentration. Alors il présente des caractères complètement différents de ceux qu'il présentait à l'état supposé de fatigue. Il paraissait agité, fatigué; maintenant son visage porte une expression lumineuse; le calme, le repos règnent sur ses traits, comme si on lui avait fait une injection de force.

C'est ce qui nous fait comprendre, ou pour mieux dire nous démontre, qu'il y a là un cycle unique et complet de travail composé de deux parties, la première, celle de la préparation, du travail d'entraînement qui ouvre la voie à la seconde, le *Grand Travail*.

Comparons l'enfant avec un convive. Le convive a faim. On lui apporte des olives, puis un bouillon. Dans le cas de l'enfant, on ne lui sert pas de hors-d'œuvre; son apéritif spirituel, c'est lui-même qui le choisit avec un instinct qui lui enseigne qu'avant de manger les mets ou l'aliment plus substantiel qu'il devra absorber, il faut s'y préparer.

Après le bouillon vient le succulent rôti; la personne attablée mange à satiété. Si un aimable témoin l'observe manger les olives avec avidité, puis déguster lentement sa tasse de bouillon et ensuite regarder à gauche et à droite avec impatience, ce témoin se dira sans doute: „Ce monsieur est rassasié, il est fatigué et il cherche l'occasion de partir. Je sais ce que je vais faire, je vais lui proposer de venir faire un tour de jardin". Tous deux sortent; en passant le témoin bien disposé donne l'ordre à la cuisine de laisser le rôti pour un autre jour. Que la promenade sera agitée! Par quel moyen ramènera-t-on le calme et la sérénité et la force dans l'âme de ce pauvre affamé?

Si au contraire le témoin est plus avisé, en voyant l'homme aux olives et au bouillon regarder à droite et à gauche avec impatience, il se dira; „En voilà un qui a faim; il est prêt à dévorer son rôti", et ce sera un véritable plaisir pour lui, témoin, de voir l'autre manger de bonne humeur et goûter avec joie sa nourriture.

Qu'au contraire des personnes bien intentionnées et préoccupées du bien d'autrui se soient dit : cet homme-là mange trop ; pour moi qui connais bien l'anatomie et la physiologie, je sais que sa mâchoire doit dépenser une force de plusieurs kilogrammes pour réduire ce filet en bol alimentaire. Il faut l'arrêter. — „Monsieur, laissez-là votre filet, vous avez la mâchoire fatiguée !”

Voilà l'occasion d'oublier un peu toute sa science.

Après le *Grand Travail*, l'enfant est reposé ; on pourrait même dire, c'est alors qu'il est vraiment reposé ! Sa sérénité lumineuse, son calme doivent crier à notre âme une véritable nouvelle. En effet, cet enfant ne nous montre pas les indices de la fatigue, mais les caractères physiologiques d'une surabondance de vie. C'est le même phénomène qui se produit après un bon dîner ou un bain qui sont en réalité des exercices, un travail, mais qui, loin de diminuer les forces, servent à redonner de la vigueur à la vie ; et de même, il existe un travail, mais qui, loin de diminuer les forces, servent à redonner de la vigueur à la vie ; de même, il existe un travail psychique qui rend l'esprit vigoureux.

Afin de permettre à l'enfant de se reposer, il est donc nécessaire de lui rendre possible le *Grand Travail*.

En effet, qu'est-ce que le repos ? Pour nous, le repos ce n'est pas de rester à ne rien faire ; les muscles ne se reposent pas dans l'immobilité, mais par le mouvement normal. De même le repos psychique se trouve dans un exercice capable de donner de la vigueur à l'intelligence.

Tout cela est aussi mystérieux que l'essence de la vie. Une institutrice ne peut pas dire : tel ou tel travail est en ce moment nécessaire à cet enfant pour le rendre vigoureux. C'est une chose au-dessus des ses moyens, car seule la vie même de l'enfant est capable de choisir le travail qui lui convient. C'est en cela que réside le respect du travail de l'enfant, la confiance dans l'attente.

Cet enfant reposé est un jeune enfant gai, à l'esprit serein, disposé peut-être à faire ses confidences à la maîtresse, parce

que son âme s'est ouverte et qu'il va à l'institutrice comme s'il s'était aperçu qu'elle lui était supérieure. Il remarque à présent dans son milieu une foule de choses qui lui échappaient auparavant. Il est évidemment devenu plus riche et par cela même plus expansif.

Le convive, lui aussi, après s'être rassasié saluera aimablement un ami sur son passage, tandis qu'à jeun il passerait peut-être sans le regarder. Ceci ne doit pas nous étonner.

Avant de pouvoir répandre des forces, il faut les avoir accumulées. Une maîtresse qui prétendrait vouloir donner une leçon à un enfant moralement faible et trop peu nourri, verrait un enfant manquant de forces pour se rendre auprès d'elle, lui faire ses confidences ou lui obéir; et s'il y réussissait, ce ne serait que faiblement ou avec de pénibles efforts.

Si étrange que cela paraisse, voilà pourtant notre manière de traiter l'enfant quand nous voulons lui enseigner les manifestations de la richesse intérieure, sans la lui donner d'abord, comme si ces manifestations de richesse intérieure, sans la lui donner d'abord, comme si ces manifestations de richesse intérieure étaient des choses qui puissent s'apprendre de mémoire.

Cherchons au contraire les voies par où les forces intérieures se développent, et comme conséquence, nous verrons éclore ces forces en abondance.

Au fur et à mesure que ces phénomènes se répètent et que se développent ce calme et ce repos, on voit apparaître un autre phénomène complexe qu'on peut appeler *la discipline des enfants*. Celles des maîtresses, à qui leur expérience a enseigné ce point, ont en réalité appris la langue de nos écoles. C'est ainsi qu'une maîtresse demandera à une autre: „Comment marche votre classe? Est-elle déjà ordonnée?" Et l'autre répondra peut-être: „Non, pas encore". On pourrait entendre aussi une remarque de ce genre: „Vous rappelez-vous cet enfant qui était si désordonné? Il marche dans l'ordre à présent. „Quand les institutrices s'expriment ainsi, c'est qu'elles savent tout ce qu'elles avaient à apprendre. Tout le reste n'est que conséquences. Dès que le phénomène a pris naissance, il va grandissant.

Les enfants chez qui il se produit se trouvent alors sur la voie du développement psychique naturel; petit à petit ils deviennent de grands travailleurs jusqu'au point où il leur devient impossible de rester inactifs. On pourra les voir, alors qu'ils attendent quelqu'un, ne pas rester oisifs; ils se mettront à un travail quelconque pour attendre avec patience. Le travail est alors devenu une *attitude* chez l'enfant.

Dans la continuation de ce développement, la période que nous appelons la *fausse fatigue* diminue de plus en plus, tandis que la ligne de repos s'allonge.

Ce repos *sui generis* est un repos actif. C'est sans doute là encore un travail intérieur qui n'est plus en rapport avec aucun objet.

Revenons à notre comparaison du dîner. Il y a la période de la digestion qui appartient au même acte que la nutrition, mais qui s'accomplit à l'intérieur sans plus aucun rapport avec les mets. Il est aussi une digestion morale qui offre des caractères particuliers d'activité chez l'enfant et qui sont ceux de la personne qui pense; cette activité a beaucoup de ressemblance avec celle des personnes en contemplation. L'enfant lui aussi contemple son milieu, perçoit les détails les plus minutieux et paraît faire des découvertes.

La concentration comprend donc trois périodes: la période préparatoire; celle du *Grand Travail* qui est en rapport avec un objet extérieur, et la troisième qui est toute intérieure, toute de réjouissance et de lumière, qui rayonne sur le milieu et qui, tel un réflecteur, met en lumière les objets qui passaient inaperçus.

Ce n'est que dans la vie spirituelle chrétienne que nous trouvons des phénomènes similaires; ainsi quand il est dit: „Ils ont des yeux et ne voient pas, ils ont des oreilles et n'entendent pas". Pour ouvrir les uns et les autres, ce ne sont pas les sens seuls qui doivent agir! Ces sens sont donc devenus de plus en plus les instruments de l'esprit.

On trouve également une sorte de parallèle dans les choses purement intellectuelles. Les gens peu cultivés trébucheront

contre d'autres ou contre des objets qu'ils n'ont pas vus en sortant d'un salon ; ils aggravent leur faute par de multiples excuses, avouant ainsi leur infériorité ; une excuse commune est : „Pardon, je n'avais pas vu. . .” Un aveugle agirait de même ; il marcherait sur les pieds de ses voisins, heurterait les meubles et pourrait leur dire aussi : „Pardon”. Nous ne croyons cependant pas que l'éducation des aveugles consiste à leur enseigner à s'excuser, mais il nous semblerait presque parallèlement que cela doive suffire pour l'enfant normal.

Passons à un autre phénomène singulier : L'enfant devient d'une obéissance admirable. Nous en restons émerveillés, puisque nous ne le lui avons pas enseigné. En outre, nous ne pourrions même pas imaginer une patience aussi merveilleuse que celle que nous remarquons chez les enfants.

Figurez-vous une personne qui ne peut pas se tenir en équilibre, qui ne peut se tenir debout, n'ose pas se servir de ses bras de peur de tomber ; elle n'avance qu'en chancelant. Dès qu'elle aura appris à se tenir en équilibre, elle sautera, marchera, se courbera à droite et à gauche. Ainsi en est-il de la vie psychique. Imaginez une mentalité déséquilibrée, incapable de se fixer, de conserver l'attitude dictée par la volonté, L'individu affligé d'une telle mentalité pourra-t-il se plier à la volonté d'autrui sans courir le risque de faillir ? Comment pourrait-il obéir à la volonté d'autrui, s'il est incapable de se soumettre à la sienne ? L'obéissance est une sorte d'agilité de l'esprit qui a comme soutien l'équilibre intérieur. Cette obéissance qui jaillit de la force contient encore en soi les possibilités les plus évidentes de ce qu'on a appelé „*l'adaptation à l'ambiance*”. Pour s'adapter à un milieu, tous les biologistes l'enseignent, il faut être fort. Les religieux aussi le savent. Pour être obéissant, il faut être fort et équilibré. On avait été amené à reconnaître ces faits dans la vie religieuse, mais on n'avait jamais songé à s'occuper dans le champ de l'intelligence d'un phénomène similaire. Eh bien, de même qu'en biologie, c'est l'espèce robuste qui peut s'adapter aux circonstances, ainsi l'intelligence vigoureuse sera-t-elle obéissante. C'est plus ou moins le même

phénomène. Si une grande richesse nous permet de tout faire, une grande force nous permet de faire tout ce qu'on nous commande.

Eh bien, par ce moyen pacifique et patient de se développer selon les lois de la nature, par la concentration de l'attention, par la contemplation qui, on pourrait le dire, est la digestion de la concentration, l'individu se fortifie et, quand il est devenu fort, il arrive à faire plus que nous n'oserions lui demander. Voyez-vous maintenant tout ce que le petit enfant est parvenu à faire avec son activité fondamentale : la concentration de l'attention et la contemplation ; de là, tout le reste est sorti : il est devenu le maître de son corps, de ses muscles, de ses mouvements volontaires ; il peut les suivre et les diriger avec attention. Nous avons vu à quel point l'enfant peut maîtriser ses mouvements, puisqu'il peut se rendre immobile dans le plus parfait silence ; chez lui la domination de soi surpasse souvent celle des grandes personnes. Il ne faut pas non plus oublier le mécanisme de ce développement, le contrôle éloquent des erreurs en même temps que le pouvoir exercé par l'ambiance. Ajoutant ces choses les unes aux autres, on trouvera là encore une ressemblance frappante avec la vie religieuse : un milieu préparé, une vie de paix, la concentration nécessaire à la méditation, la contemplation, la maîtrise sur le corps, le silence, des exercices uniformes répétés de jour en jour. Les religieux ont été ceux qui ont préparé les plus grands héros, les saints, ceux qui sont prêts à tous les combats, combats contre la tentation, endurance au martyr. Ce n'est pas par des discours chaleureux qu'on a préparé de tels héros, ni en sonnant la trompette du combat ; au contraire, on a parcouru le chemin silencieux de la formation.

S'il était suffisant de donner ce qui manque par des exhortations, des menaces ou des commandements, que n'essaie-t-on de ce traitement pour rendre la vue aux aveugles ? Ce serait un miracle et il n'est pas au pouvoir de l'homme d'en faire. Et pourtant les éducateurs souffrent encore de pareilles illusions. Ce qui est nécessaire, ce sont des exercices capables de rendre

fort. Qu'ont fait les religieux ? Ils sont restés dans ce milieu préparé, jour après jour ; les mêmes principes peuvent se répéter pour toute la vie psychique pour l'éducation du caractère. Si l'homme est une unité, unique doit être son chemin. Dans la vie intérieure, il y a aussi une unité.

La comparaison doit être évidente, car on ne supposera pas qu'il me soit jamais entré dans l'esprit de conduire l'éducation de petits enfants de trois ans, en suivant l'exemple des moines, des héros de la sainteté. Non. J'ai acquis mon expérience par une tout autre voie. Ce sont les enfants en liberté qui m'ont révélé certaines lois de la vie intérieure, lois générales et qui ne sont pas exclusives aux religieux. Ce sont les enfants qui m'ont découvert le chemin étroit du développement de la vie qui se dérobe à la matière et qui est en nous. Ce sont les enfants qui ont cherché spontanément et ont trouvé par instinct le chemin de la force ; la concentration est le centre du développement. En effet chaque force, pour devenir force motrice, doit être canalisée. L'eau d'une inondation sèche au soleil, mais l'eau canalisée s'y réchauffe et devient force motrice. Voilà pourquoi nous avons la conviction de pouvoir affirmer qu'il est inutile d'enseigner les principes de la force ; ce qu'il faut faire, ce sont des hommes forts.

Child Character ¹⁾

by

Dr MARIA MONTESSORI.

We have chosen intentionally the title: "Child Character". By character we mean not merely the traits of moral character but also the child's personality, which is not composed of moral, intellectual and physical factors but which is a whole, and which can be analysed only by psychologists.

We intend giving here a general survey of children's characters, of their activity which is so often not taken into consideration, and which is still more often misunderstood.

Suppose that the development of some work is represented by lines.

Suppose then that a straight line represents the state of rest. Suppose again that all the lines in the upper part represent orderly work, i. e. "order", and those in the lower part disorderly work, or "disorder". Take a look at this scheme, and with this guide let us follow a child's actions in school.

Let us consider the different circumstances: the child enters the school; he keeps quiet for a while, and then starts working. The line moves upwards into the division of "order". He grows tired and commits disorderly actions, and the line falls instantly into the division of "disorder". The child takes up some new work. He had, for instance, first taken up the solid blocks and now the coloured tablets. Up to this time he has been assiduous, but all at once he begins to hinder his neighbours, and the line drops; he amuses himself by teasing his comrades, and thus

¹⁾ An address given by Dr. Montessori at Brussels and published in "La Femme Belge".

deliberately enjoys being disorderly. He then chooses the musical bells; he makes them ring; for a moment he will keep quiet and the line rises again into "order". When he has finished this he will begin to annoy his teacher.

This line might give us an idea of the daily acts we have just spoken about, and at the same time a diagram of the individual work of a child at school.

Such a diagram can demonstrate at one glance the development of a continued phenomenon which we might be able to follow, thanks to a law, provided one existed.

But in this line we do not see any law which is capable of interesting us in it; it is a diagram of those many children who do now this, now that, without being able to fix their attention upon anything, and who handle in half a day all the material which might suffice for a whole year's work. This is the type of a disorderly child.

We shall leave this child for a time, and after an interval we shall go back to the same child when we shall see that the phenomenon of concentration, namely attention, has begun to show itself.

Now I will give you the diagram of a child in the transition stage, i. e. no longer disorderly, but not yet quite orderly, a state we might consider as being just between order and disorder.

On coming into school the child chooses some simple work, very easy to himself, one or other exercise of practical life. He leaves it to take up from the material a familiar object, and repeats certain exercises. Then we see him get tired, restless, and his line falls under the line of "order". This may happen not merely with one child alone but also with a whole class. What would the inexperienced teacher say in that case? She would conclude that the children were tired after having done exercises of practical life or after having worked with the material, that the phenomenon of concentration has not shown itself, but that she is powerless to do anything.

If the teacher is kind-hearted, if she knows the principles of psychology or of psycho-pathological hygiene, so highly thought of nowadays, she will conclude that the children need a rest,

that she has to stop the exercises or change their surroundings, and she will take them with her into the garden. You will see them playing "disorderly", filling the garden with their shouts, and when back again in the class-room, they will be much more restless than before leaving it; they will do nothing but change about from one work to another, and their seeming fatigue will be as evident as before.

How many teachers have not said to themselves: "It is not a fact that free choice of work brings rest and calm to little children; for I have actually seen them choose their own work and apply themselves to it for a moment, but yet their unrest grows; it is of no use whatever to make them rest, or to take them to another scene; I shall never succeed either in making them work or in giving them restfulness".

Such teachers have faithfully studied this method, but they have not had the required confidence in it to respect the child's freedom. And they cannot refrain from reasoning, from having recourse to their scientific knowledge, from interfering, from trying to direct, and by doing so they interrupt the process of the phenomenon and thus they spoil all.

If, on the contrary, a teacher respects the child's freedom, if she trusts sufficiently to it, if she has a strong enough character to forget for a moment all the science which aids her own intelligence, and if she be humble enough not to think that her interference will be of any use, she will have the patience to wait. Then she will see the phenomenon; after the preliminary work, after the spiritual unrest of a child seeking in the depths of his consciousness where light has not yet appeared: he has chosen a new, to him difficult, work; he gives himself wholly to it, he becomes engrossed in it for a long time, devoting his whole soul to it, he isolates himself from his surroundings: this is what we call the "*Great Work*".

When finished, the child leaves the object alone which was the instrument of his concentration. Now he shows an entirely different character from that shown when he was supposed to be tired. Then he looked tired; now his face bears a radiant

expression ; calm and repose reign on his features, as if he had been given a strength-giving injection.

That makes us understand, or rather demonstrates to us, that there is one whole and complete cycle, composed of two parts, the first one being that of preparation or training, which is followed by the second one, the "*Great Work*".

Let us compare the child with a hearty eater. He is hungry. Olives are brought to him, and then soup. In the child's case, he will not be served with the hors d'œuvre, his spiritual aperitif, but chooses it himself with an instinct which teaches him that before eating the substantial dish he must prepare himself for it.

After the soup comes the nourishing meat ; the person at table eats his fill. If a friendly neighbour were to see him eating his olives without eagerness and slowly drinking his soup, looking impatiently to the right and left, that neighbour would doubtless say : this man has had enough ; he is tired and he wants to be off. I know what I shall do. I shall suggest to him a stroll in the garden.

Then they both go out, and in passing the neighbour gives the order to keep the roast for the next day. How disturbed the stroll would be ! By what means could repose, cheerfulness and strength be brought back to the soul of the poor hungry man ?

If, on the contrary, the neighbour has more perspicacity, he will say to himself on noticing the man at his olives and soup looking impatiently round him : "this man is hungry, he is eager to eat his roast", and he will take a real pleasure in seeing the other eat with a good appetite.

How many well-meaning people, anxious about the welfare of others, would say to themselves : "This man is eating too much ; I, who am familiar with anatomy and physiology, know that his jaw has to expend a force of several kilograms to reduce this slice of beef to chyme, I have got to stop him : Sir, leave your dinner, your jaw is getting tired."

Here is a case when we have to forget some of our science. After the "*Great Work*" the child is rested ; one might even say that it was then he was really resting ! His radiant cheer-

fulness and his calm proclaim a new truth to us. As a matter of fact the child does not show the signs of fatigue; on the contrary the physiological characteristics indicate a superabundance of vitality,

It is the same phenomenon which shows itself after a good dinner or bath, which are really exercises, or work which, instead of diminishing our strength, serves to restore our vigour; in the same way there is a psychical work which invigorates the spirit.

To enable the child to rest it is necessary to enable him to do the "Great Work".

As a matter of fact, what is rest? To us it does not mean being idle; our muscles do not rest when inactive, but only when acting normally. So psychical rest consists of an exercise which renders the intellect vigorous.

That is all as mysterious as the essence of life. A teacher cannot say: this child needs this or that work just now to be vigorous; that is beyond her power, for only the child is capable of choosing the work which suits him. Herein lies the respect due to the child's work and the confidence to await it.

The child that is rested is a merry, cheerful child, who will perhaps be disposed to confide in his teacher because his soul has awakened and he is going to see in his teacher a person superior to himself. He now observes a great many things in his surroundings which he did not remark before. Assuredly he has become richer, and hence even more open-hearted.

The diner, too, when having eaten his fill, will greet a friend affably whom before dinner he might have passed by without even a glance. This need not astonish us.

Before being able to expend our forces we must first collect them. A teacher who would try to instruct a child morally weak or ill-nourished would find that child wanting in the power to come to her to confide in her and to obey her, and even were he to do so, it would be feebly and with difficulty.

Though it may seem strange, it is in this way that we teach

children the manifestation of this inner wealth without imparting it to them beforehand, as if these manifestations of inner wealth were something that could be learned.

Let us rather look for the way by which those inner forces develop, and as result we shall see the same forces unfolding themselves abundantly.

According as these phenomena recur, and calm and rest develop, another complex phenomenon will appear which might be called *the discipline of the children*. Those teachers whose experience has taught them this point, comprehend the language of our schools. Thus one teacher will ask another: "How is your class getting on? Is it orderly yet?" and the answer may be: "No, not yet". Or one might hear a remark of this kind: "You remember that child who was always so disorderly? He is quite orderly now". When teachers speak in this way they have learned what they had to learn. All that follows is but a natural consequence. The phenomenon begins to grow as soon as it has manifested itself.

The children in whom it has shown itself are on the way towards psychical development; gradually they will become "Great Workers", and finally it will be impossible for them ever to be idle. If, for instance, they have to wait for some one, they will not be long without finding something to do; they will begin some work or other to be able to wait patiently. Work is then an *attitude* of the child.

As this development continues we see that the period of the *pseudo fatigue* gradually decreases, while the line of rest becomes longer.

This rest *sui generis* is an active rest. Without doubt it is again an inner activity which has no connection with any object.

Let us go back to our comparison with the diner. There is a period for digestion which also belongs to the process of nutrition, but which takes place internally and is in nowise connected with the different dishes. The child's mental digestion also has particular traits of activity which are those of a meditating person; this activity is very like that of persons in

contemplation. The child also contemplates his environment, notices the smallest trifle and appears to be making discoveries.

Concentration is thus divisible into three phases: the preparatory phase, that of the "Great Work" which is connected with an exterior object, and the third phase which is entirely an inward one, full of joy and light which, like a reflector, illuminates the environment and enlightens objects which would otherwise pass unobserved.

Only in the spiritual Christian life do we find similar phenomena. Thus it has been written: "Eyes have they but they see not, ears have they but they hear not". It is not the senses only which must open these. These senses have thus become more and more the instruments of the mind.

In the same way there is a kind of parallel in purely intellectual matters. Ill-bred people on leaving a room collide with others or with the furniture they did not see; they make their mistake worse by profuse apologies, by which fact they prove their inferiority; a quite common excuse is: "Sorry, but I didn't see...." A blind man would do the same: he would tread on his neighbour's toes and stumble over the furniture, and might say with equal truth: "Sorry....." We do not think, however, that the education of the blind consists in teaching them to make apologies, and it would seem to us almost the same if this were to suffice for the normal child.

Let us consider another phenomenon: the child becomes obedient; we are much astonished at this, for we have not taught him obedience; moreover no one could ever imagine such marvellous patience as we notice in children.

Imagine a person who could not keep his balance, who could not stand upright, not daring to use his arms for fear of falling but only stumbling forward. But once having learned how to maintain his equilibrium, he will be able to leap, to walk as he likes, to bend to the right and left. It is thus in psychic life. Imagine an unbalanced mentality, to whom it is impossible to fix upon, and hold fast, a mental attitude dictated by the will. Could such a man submit to another's will infallibly? How

could he obey another's will without being able to obey his own? Obedience is a kind of pliability of the mind, which is supported by the mental equilibrium. This obedience, which springs from strength of will, has in itself the greatest possibilities for what we call "*adaptability to environment*". To adapt oneself to an environment one has to be strong, biologists teach us. The monks also know this. To be obedient one has to be strong and well-balanced. These were acknowledged facts in religious life, but nobody had thought of employing similar phenomena in the intellectual world. Just as in biology the strong creature is able to adapt itself to circumstances, so will the vigorous intellect be obedient.

This is more or less the same phenomenon. If great wealth allows us to do all we wish to do, great strength will allow us to do all we are told to do.

By these gentle and patient means of development according to natural laws, by concentration and attention, by contemplation which, one might say, is the digestion of the concentration, the individual fortifies himself, and once strong, he can finally do more than we would venture to ask of him.

Do you see now what the little child has done with his fundamental activity, his concentration of attention and his contemplation which is the starting point of all else? Now he is master of his body, his muscles and his voluntary movements; he is able to follow them and direct them with attention. We have seen how far the child can master his movements, since he is able to keep motionless in the deepest silence; his self-command is often greater than that of grown-up persons. Neither must we forget the mechanism of this development, nor the speaking control of mistakes, together with the influence exercised by environment. If we consider all these facts together we shall find a striking resemblance to the religious life. A prepared environment, a life of peace, the required concentration for meditation and contemplation, mastery over the body, silence, the same exercises repeated from day to day. The monks have produced the greatest heroes, namely the saints, those who

were ready for every strife, struggles against temptation, endurance in martyrdom. Such heroes are not formed by heated speeches, nor by sounding the trumpet of war; on the contrary they have traversed the noiseless road of formation.

If what is wanting could be supplied by exhortations, by threats or by commands, we should try this treatment to give back sight to the blind. This would be a miracle which is beyond our power. All the same, pedagogists still suffer from such delusions. What is essential is the bracing exercises? What have the monks done? They remained in that prepared environment day after day; the same principles can be applied to the entire psychic life for the training of character.

If man be a unity, his path must be equally so. In the inner life there is also unity.

The comparison must be clear, for no one will suppose that I should think of educating children of three years by following the example of the monks, those saintly heroes. No, I have gained my experience in quite another way. Children in freedom have revealed to me the laws of inner life, general laws which are not exclusively followed by monks. It is the children who led me to discover the narrow way for the development of the life which has freed itself from materialism and which is in us. Children have spontaneously sought and have instinctively found the way of strength. Concentration is the centre of development. As a matter of fact every force must be conducted into channels before becoming motive power. The water of a flood is evaporated by the sun, but canalized water is heated and becomes motive power. This is the reason why we venture to say that it is useless to teach the principles of strength; our aim must be to make strong men.

Sensitive Periods

by

Dr Ae. B. DROOGLEEVER FORTUYN

Lecturer in Histology, University of Leiden, Holland.

"We are all so engrossed with the progress of our environment and of the ideas embodied in it, that we have not yet turned our attention toward ourselves: toward life".

These words of Montessori (Pedagogical Anthropology, 1913, p. 473) may serve as apology for drawing the reader's attention to a biological phenomenon which is obviously one of the foundations of the Montessori method. To make my meaning clear I shall treat my subject first from a biological standpoint, and then from the standpoint of pedagogy.

Every living being, man included, is a product of hereditary characters and of environment. There would be no education at all if one could not exert some influence upon the development of the child by the mental and material food, (that is to say, by the environment), offered to him. But the environment is not the only master of development. It acts on something which may be generally called the germ, but which is essentially a group of hereditary characters. Under the most divergent circumstances an acorn grows up, either to nothing, or to an oak; a hen's egg can produce nothing but a chicken. This proves that the power of environment over the development of an organism is limited by the qualities of the germ. Since these qualities pass from one generation to another they are hereditary.

Pedagogy, too, is limited in its action, since the new-born child has inner potentialities for development in some definite direction. Education can make the body and mind of the child into nothing else than the body and mind of a man — perhaps

with very divergent, but still always human, characteristics.

From earliest times the cultivators of plants and animals have realised the limitations of environment in affecting the development of an organism. The progress of biological science has led them ever more to the detection in an experimental and scientific way of the definite consequences of a given circumstance in the development of any organism.

It then appeared that the same circumstance might have a very different result — even in the same species of animal or plant — when applied in different developmental stages. A circumstance favourable during some period of development may be unfavourable during the next one. A diet consisting of nothing but milk, for example, is the best for the new-born mammal, but it must be regarded as insufficient for the full-grown animal. Again, it was found that a circumstance greatly influencing development in one life-period had no appreciable consequences in another one. The organism, that is, showed a temporary sensitiveness to this circumstance.

This phenomenon has always been known. For example, it has always been known that in the life of many organisms there occurs a period of sexual maturity when one sex is sensitive to the other. But the general occurrence of this phenomenon has certainly not always been recognised.

Without wishing to detract from the merits of any other writer, I believe it was professor Hugo de Vries, the famous Dutch botanist, who first drew attention to this phenomenon, and who called it the sensitive period. He did this in the year 1889.

To remark a common phenomenon is often the privilege of genius but attention once having been drawn to it, many others appear to have more or less clearly alluded to it. The notion quickly spreads and is soon common to all. Thus it was in this case. The expression "sensitive period", for the phenomenon of a temporary extraordinary sensitiveness of an organism to the action of some definite circumstance affecting its development, soon found admission with biologists, and is now used everywhere.

The first example of a sensitive period may be given here by the caterpillars of *Porthesia*, a genus of butterflies occurring both in America and Europe. The young caterpillars after hatching crawl constantly towards the light. So they are sensitive to the light (positive phototropic). Now, the nest of these caterpillars is on a tree. Therefore the young caterpillars crawl to the ends of the branches where the light has its greatest intensity. There they find the newest leaves, soft enough to be gnawed by their tender jaws. However, as soon as they have taken their first meal they lose this special sensitiveness towards the light. Consequently they are not forced by the light to remain at the ends of the branches — which would soon be leafless — but they can crawl back again along the branches to other leaves of the tree. So the termination of the sensitive period greatly benefits the animal.

These observations on the creatures living freely may be completed by experiments in which the young caterpillars are put into boxes where the light can enter in different directions through slits which can be closed. Even then the caterpillars will crawl towards the light and one can direct their movements by the illumination. This may be continued either until the caterpillars are dying of starvation, or till they are allowed to eat. In the latter case the sensitive period comes to an end, and one can no longer conduct them by illumination.

It is not always in the behaviour of an organism that the sensitive period makes its presence known. Often it is in the time during which the direction is determined of some part of the physical development. In this form it probably exists in every case in which the phaenotype of an organism (its appearance) is not completely determined in advance by its genotype (its hereditary faculties). Some examples may illustrate this.

All know that the working-bees are females incompletely developed in some respects. Only the queen-bee is a perfect female. The difference is caused partly by the difference in food of the larvae of the working-bees and of the queen-bees. If a hive be deprived of all its queen larvae the bees can

administer the royal food to larvae which would have grown up into working-bees, but which now develop into queens. So the life of the female larva contains a sensitive period during which the nature of the food decides whether it shall develop into a working-bee or a queen. If the larvae of working-bees are too old, if in other words this sensitive period has expired they can no longer become queens, whatever be the nature of their food. Their development has proceeded too far in the direction of working-bees.

I do not know whether in the preceding case the end of the sensitive period has been determined explicitly, but this has been done in the following case. It concerns *Hydatina senta*, one of the *Rotatoria* — very small worms such as are found in our gutters. Nussbaum (Archiv für mikroskopische Anatomie, Bd. 49, 1897, also cited in Nussbaum, Karsten, Weber, Lehrbuch der Biologie für Hochschulen, first edition, 1911, p. 439) found that the eggs of this animal only yield females if the mother has been well fed from the moment of hatching till the maturation of her first egg, i. e. till the beginning of her sexual life. If, on the contrary the nourishment during this time has been poor her eggs only yield males. If the nourishment of the mother during her reproductive period determined the sex of her offspring we should not have been surprised. But here we meet with an exactly limited period in the life of the female *Hydatina*, determining the sex of her offspring, and yet preceding her sexual life. This warns us not always to expect very simple situations in connection with sensitive periods.

Finally I should like to mention a sensitive period in a plant, and I choose the classical example of de Vries (Die Mutations-theorie, Bd. I, 1901, p. 99), where the phenomenon has received its name. The poppy, *Papaver somniferum*, has a variety called polycephalous, because its fruit is surrounded by a circle of smaller ones. The flower-stalk consequently does not end in one head, but in a great number of heads, which is indicated by the name polycephalous. The number of superfluous carpellae varies from about 150 downward, but it is never nought. How

many of them are actually present in a given case depends upon the treatment of the seedling. In about [the sixth week after germination the superfluous carpellae are visible under the microscope as small buds. Obviously their number is now a fixed one which could only have been altered at a previous time. In accordance with this de Vries found ill-treatment during the first weeks of the life of the seedling to reduce the number of superfluous fruits; whereas favourable conditions increased it. So the first weeks of the life of the seedling are a sensitive period for the development of a monstrosity which is only seen at the end of its life.

One could easily multiply the number of these examples, and I may safely say that sensitive periods occur in all organisms, although I am not aware of any paper dealing with the subject in a general way. Among the biologists who admit them I should like to mention Driesch and V. Haecker. Driesch (*Philosophie des Organischen*, second edition, 1921, p. 236 and 237 on sensitive periods in the experimental creation of mutations) because his well-known vitalistic philosophy of life formed the subject for a series of lectures also given in Scotland; V. Haecker because he puts the question (*Entwicklungsgeschichtliche Eigenschaftsanalyse*, 1918, last page) whether there exists in any organism a single character without a sensitive period for its development. A character in other words which might be developed during the whole life. Indeed this question also deserves to be put in pedagogy.

Before concluding the biological part of this paper, I must guard against a certain mistake. The life of man, and of other organisms, is full of periodical phenomena, e. g. those relating to the seasons, or to day and night. They depend not so much upon a varying sensitivity of the organism as upon varying circumstances. Yet even in so far as they are caused by a varying sensitivity it will be best not to ascribe them to "sensitive periods". If we wish to remain in accord with the customary sense of the word (compare the examples given above) we must mean by a sensitive period a period existing only once during

the life of the organism. By neglecting this we make the idea obscure and meet with many difficulties.

Now let us turn to sensitive periods in pedagogy. To a certain extent their presence here too has always been recognised. It is an old saying that one cannot teach either a baby or an old man to read. But in my opinion it is the great merit of Montessori to have sought for sensitive periods in the development of the child, and to have harmonised pedagogy with them. This could be recognised even if one did not agree with her method in other respects.

Although I cannot find in Montessori's works a clear exposition of the idea of sensitive periods as a principle of her method, she repeatedly calls biology in a general way a basis for pedagogy, and many passages of her books obviously deal with the phenomena of the sensitive period. I need not quote here these passages verbally, as I did in a Dutch paper. Let it suffice to remind the reader of the following facts. According to Montessori, the development of the senses of the child lies between the third and seventh year. During that time we can further this development by adequate stimuli, whereas this proves impossible in adult persons. The time for this training has then passed.

With regard to the development of speech Montessori remarks that the child aged three to four years is already able to speak articulately. He lives in the period of perfecting his speech mechanism. According to Dr. Montessori it would be better to guide the development of speech in the young child than endeavour to improve the speech of adults, who, I presume, have passed the sensitive period for it. That at the age of three years the child is in a sensitive period for speech-training has been found in the United States of America quite independantly of Montessori. Formerly the instruction of speech with deaf-mute children started there at the age of seven. Now it commences at three years, with much greater success. In Holland Prof. Burger has introduced this early beginning in a school for deaf-mute children at Amsterdam with the same result.

The development of obedience, too, seems to be connected

with one or more sensitive periods, according to Montessori, and so is the development of the religious sentiment. If we think religious education should only begin with the adult, we risk committing, as Montessori says, the same error as when we fail to develop the senses in their sensitive period, i. e. infancy.

In studying the way in which the children use the material, and what Montessori says about it, we meet once more with the sensitive period. The material is bound to the age of the child. A child of six years old is scarcely interested in the cylinders, which may be intensely fascinating to a child aged three and a half. Similarly the child loves to touch the sand-paper letters at four. At five he does not like to do so so much; whereas one can hardly induce a child to touch those letters at the age of six.

The principle of the sensitive period accounts also, at least partially, for some special characteristics of the Montessori method. Considered from this point of view they appear in a new light. Montessori calls the children to her school at the age of three years. Many mothers resist this because they do not see why they should part with their children so young. It is because those sensitive periods are then beginning which are the basis of the Montessori method, and because complete development which may be reached at the proper time cannot be reached when the period for it has passed. No wonder that children who arrive at a Montessori school at a later age encounter many difficulties.

In the Montessori school the child is allowed to choose the material he wishes to use. That this should be possible, that it does not lead to chaos, is due to the peculiar character of the material which has been adapted to the sensitive periods of the child. Thus the child will choose from a cupboard full of material, the use of which has already been demonstrated primarily that piece which has most to do with his present sensitive period. This attracts his attention more than any other material.

The question may perhaps arise how it is possible that in the development of the child sensitive periods should appear for writing, or for geography. Our ability to write — to take this example only — is a consequence of our culture, and cannot be given as such in our biological or natural disposition. This is quite true. But, as Montessori herself points out, a sensitive period strictly speaking only exists for the development of the muscular sense, and this again has been made to serve as a basis for the teaching of writing. What we learn to write — for example, Latin or Greek letters — is a matter of culture without noticeable biological ground. For brevity's sake, however, I have spoken of a sensitive period for writing. Obviously other unknown biological and psychological elements are included also in mathematics, grammar, geography, and so on, and with these elements sensitive periods are connected in some way.

It looks to me as if the sensitive periods shown by older children are chiefly periods of special attention for some dominion of the human mind. If this be true, we may expect that sensitive periods are to be found also during adolescence, and that the education of the adolescent too might gain by taking notice of them. But animals and plants teach us that sensitive periods are more numerous as the organism is younger; and the same will be true of the child. This again would explain why Montessori particularly emphasises the education of the very young child.

Without neglecting what we know as to the development of the idea of the sensitive period, we may say that the fact that the Montessori method is based upon the sensitive periods of the child forms part of the novelty and originality of this pedagogy. By this the Montessori method differs in principle from any other system that I know. It also explains to me in some degree the success of the method and the possibility of reaching by its means results differing markedly from those obtained by other systems not founded on this principle. In the latter the teacher sometimes uses his utmost efforts to get a result which is outside the sensitive period, and which might be reached in a more natural and more comfortable way at another age of the child.

Persons who are no friends of the Montessori method often ask sceptically what part of the system will remain after a long time, since they expect that it will before long be superceded by something else. To them I should like to remark that the Montessori method by using the sensitive periods of the child is founded upon a general characteristic of life, proper to all organisms, and therefore lasting as long as life itself. So I can scarcely imagine that the principle of the sensitive period once accepted in pedagogy will ever be abandoned.

Of course it is quite another question to ask whether Montessori has already given us in her method everything important to the sensitive periods of the child. I think not. Above all the field is so extensive that it cannot be exhausted by the work of a single person, whoever it may be. Certainly our knowledge of the sensitive periods important to pedagogy is still very incomplete. I shall be very satisfied if by this paper other persons are induced to verify exactly what is at present known, carefully to search for new instances, and so to extend and refine the Montessori method.

Intellectual Machinery and Education

by

S. R. THOMPSON

(Queen's University of Belfast.)

The influence of tradition in educational practice is the object of both approbation and condemnation. If the aim of the educator be obscure and his landmarks dim it will save him from portending disaster by directing his footsteps into a way, which, at least, has the advantage of having been traversed by others before him. The more common experience of the teacher, however, is to face the alternatives of a familiar route and a route that is untried and vaguely charted, but more alluring in its prospects. And if the teacher, faced by the alternative, had the decision to make every time in its own special terms, the points of similarity with other problems being unrecognisable, then indeed would his position be unenviable. If the practice of education contained a multitude of unrelated problems, and to the baffled beginner it appears to approach this extreme, then educational science would be arrested on the threshold. The immediate problems of the teacher, however, present many common features and it is not impossible to recognise them in broad and general terms. Of course, it would be untrue to say that all educational theory consisted of generalisations discerned in practice, but the fact of importance is that the teacher's problems are not satisfactorily solved as separate cases but in groups and sets where common features are of greater importance.

One of these broader issues, present in large measure in every teacher's work, and especially in the earlier stages of development, is discernible in terms of *instrument* and *purpose*. Within the scope of the distinction between these two terms

lie many of the points of difference between old and new methods. In former times the child was taught word forms and syntax prior to expression, the laws of number and space prior to the attack on problems they were constructed to solve, the rules of perspective before the effort to examine or draw an object, the elaborations of measurement apart from the circumstances which demanded such activity; and these methods held undisputed sway, without any thought of challenge or attack. The moving idea was that whatever was recognised as instrumental and necessary must be mastered as soon as possible and in the form decided upon as suitable for its future use. The old pedagogy had the advantage of simplicity and clearness; but these qualities were gained by the sacrifice of interest, the vital concern of education.

The terms, *instrument* and *purpose*, as used in a pedagogic sense, possess, of course, only relative meanings; the aim of one activity, becomes the means of another and so on in endless complexities. The concern of the learner, and therefore of the teacher, is the power to manipulate an instrument. But does the woodman learn to wield the axe or to fell the tree? The question seems futile, but it sets out in bald terms many a pedagogic dispute; while one teacher will prescribe an elaborate course of axe swinging, another will point the pupil to the tree. Between these two extremes the quarrel sometimes runs high. One observer notes the axe swinger's hesitancy in the presence of the tree, another notes the tree feller's want of experience with the axe. One educator puts his faith in axe swinging in the hope that tree felling or any other purpose will be attacked successfully, another sees in the preparations to fell the tree the value of selecting an axe from the tool shed. An oncoming examination is not without an influence on the issue according as it measures the precision of the strokes or the resistance of the tree. In different terms and various disguises every teacher must face this problem and find some solution.

As examples of what the above is intended to illustrate, the

early instrumental exercises of writing and numerical calculations are here selected. Some would recommend a strong discipline in spelling and penmanship, with the aim of cultivating the command of language regarded as much more remote, or may be even left for chance development. Thus the manipulation of an instrument overshadows a larger purpose and the deep springs of mental energy are not brought into action owing to absorption in the mere abstractions of technique. But here it should be noted that, even where the real purposes are not neglected, the divided attention between the end in view and an unstable control over the means often reacts unfavourably upon the performance. Thus a class, with a good reputation in penmanship and spelling tests, when asked to write a short passage of original composition, will show a marked decrease in the standard of both penmanship and spelling; especially is this true of younger children.

The following little experiment, primarily made to bring the matter before the attention of a group of students, indicates a similar phenomenon in easy calculations. The class selected for the experiment contained 46 children, of ages eight and nine, and had received instruction in multiplying a large number by a number not greater than nine. They were accustomed to certain forms of question, current in arithmetic text books, requiring such calculations. The experiment consisted of two tests. The first was introduced by a vivid description of a child's desire to know how many picture cards a small album would contain; the class was keenly interested and suggested the method of counting the number on one page (nine), and also the number of pages (twenty-four). All the class co-operated in the counting, and then eagerly set to work under the simple request to find the number of pictures. The second test consisted of a familiar problem, written by the class teacher herself, on the blackboard, requiring the total number of eggs in nine baskets, each basket containing 34. The following is an analysis of the results.

	Correct	Error in calculation only	Incorrectly set out
Test I — a practical problem	28	8	10
Test II — a familiar exercise	42	1	3

In each column it so happens that the larger number includes the same children as those counted in the smaller number. The numbers in the second column form the evidence sought. In Test I, eight children, having understood the problem, and mastered the real difficulty by "setting out" the form of solution, made errors in calculation, while seven of these eight made no such error in the second test. All these seven children had performed much more difficult exercises of the same form of solution.

Results such as the above are no doubt familiar to many, but the teacher who sees the cure in more drill in calculation, is repeating the mistake of commanding the sufficiently expert axe swinger to more axe swinging exercises because of his bad display in the presence of the tree.

The practice of education contains so much instrumental work that its bearings cannot be ignored. The difference between men of to-day and their early ancestors is not a difference of innate mental powers but a difference of mental machinery. The difference resembles that between an ancient canoe and a modern steamship, the latter having device piled upon device till its scale and character far surpass the canoe, without, however, altering its essential properties. In every subject in the school curriculum and in all the means of education the pupil acquires the use of instruments more and more refined and elaborate till his whole range of thought, activity, and appreciation, depending in some way upon a complex apparatus gained by experience, sweeps him far out beyond the limitations of the uneducated.

Postscript by Dr J. C. L. Godefroy.

As Professor Thompson rightly observes, the difference between

the man of to-day and his early ancestor is not a difference of innate mental power, but rather a difference of mental machinery. In this too, the distinction would consist between the educated and the uneducated. The former rises above the latter because he disposes of a complex psychic apparatus for the expression of his thought, activity, and appreciation, which the latter lacks.

Now it is in this very respect that the followers of the Montessori-method claim the right to go further than current modern pedagogical conceptions and even to differ from them fundamentally as far as their purpose is concerned.

In the Montessori-method, we are not concerned with a mere improvement of the psychic machinery, but the principles of Montessori, rightly applied should also result in a development of the innate mental powers of the child in a way, as cannot yet be pointed out in any other current modern educational method, nor, for that matter, is consciously aimed at either. Typical for the relation between technique and inner mental powers of the child is the result of the experiment, recorded by Professor Thompson.

For from this we may conclude that the mechanism of the technique of ciphering had been properly inculcated, but that the children failed to some extent in a proper application of this technique, when brought face to face with a concrete practical problem.

If this test had been carried out in a well-developed Montessori-school, the result would probably have been different. There indeed the technique, once acquired, is not over-emphasised, as is done in so many ordinary schools, but is spontaneously developed by the children themselves and freely applied to problems, presented by real every-day life, having the full interest of the child.

Often have I seen pupils of a good Montessori-class, passionately exerting themselves to find all kinds of application in their surroundings of an arithmetic problem, the theoretical form of which had become clear to them a very short time before.

The records of a Montessori-school, known to me, contain a good number of writing-books, filled with arithmetic sums, composed by the children themselves and illustrative of events drawn from their own lives, as may appear from the two following samples:

Subtraction.

On my birthday I received a box of beads. My little brother wanted to have a look, but by accident he dropped the box. Some beads were not to be found, though we looked for them all over the place. There were 50 beads in the box, but now there are only 42 left. So I lost 8. I think it is a pity those eight were lost; don't you?

Addition.

A farmer had one hen, which laid eggs. The farmer was very pleased, for from these eggs he would get little chicks, and then later on he would have, not merely one, but a great many hens.

When he came one morning to have a look, he found 12 sweet, dear, tiny chicks, which had come out of the eggs.

Afterwards they became hens in their turn and so things went on till in the end the farmer had quite a poultry-farm.

Now he wanted to know how many fowls he had got. So he made an addition, which ran as follows: $1 + 12 = 13 + 10 = 23 + 9 = 32 + 4 = 36 + 7 = 43 + 3 = 46$.

So he had 46 fowls.

If we compare with the above the following sum:

Given. A cheesemonger buys a lot of cheese for f 1650.—.

He makes a profit of 4 %.

Query. What is the sale-price?

Solution. Purchasing price f 1650.—

Profit f 66.—

Sale price f 1716.—

we see that of the three sums, printed above, two consist in the application of the scheme to the experiences of the child's life; the third is a task set, solved according to the proper method.

Analysing these problems psychologically we are struck by the great difference between the liveliness of description in the first two and the last. The logical necessity of a deduction is succinctly, but clearly indicated in the former; in the third, on the other hand, we recognise the acquired technique. The sum has been solved correctly, but it is evident that the pupil was not interested.

So the result is that in a Montessori-school the mental machinery is better at the disposal of the pupil, is more ready for use and becomes part and parcel of his mental equipment and a better apparatus for the expression of his inner self than in an ordinary school with its uninteresting „absorption in the mere abstraction of technique“, which can only be applied by the pupils in the one form in which they have practised it.

Therefore we must thank Professor Thompson for having recorded his experiments and their results, which demonstrate plainly and distinctly the advantage of applying a method like that of **Dr. Montessori**, which prevents the development of such gaps and weak points in the child's initiative, as must inevitably be the result of the over-abstraction of technique in other schools.

Die Gefahren der Isolierung

von

Dr ALFRED ADLER, WIEN.

Man kann das Wesen eines Menschen und den Sinn seines Lebens nur aus seinem Zusammenhang mit den anderen Menschen erkennen und aus den Antworten, die er auf die gesellschaftlich unabweislichen Fragen gibt. Wert und Bedeutung eines Gedankens, einer Tat, einer genialen Leistung ruhen immer nur in ihrer Beisteuer zur Förderung der Allgemeinheit. Alle grossen Schöpfungen der Einzel- und der Massenseele, Gesetze, Religionen, Werke der Wissenschaft und der Kunst haben einzig ihren Sinn und Anspruch aus ihrem bleibenden oder vorübergehenden Nutzen für die Allgemeinheit geholt.

Der Natur gegenüber ist der Mensch recht stiefmütterlich bedacht. Selbst unsere gegenwärtige Kultur mit allen ihren Hilfen ist noch nicht genügend entwickelt, ein unbesorgtes Dasein geniessen zu lassen. Der Prozess, den die Natur gegen uns anstrengt, ist hart und unerbittlich. Die Spannung, in die er uns versetzt, und die Vergänglichkeit alles Irdischen, ferner die Hilflosigkeit unserer ersten Jahre erzeugen in jeder Seele eine Stimmung der Unsicherheit und Minderwertigkeit, aus der sich zwangmässig das Streben nach Besserung der menschlichen Lage entwickelt.

Der Weg zur Linderung der kindlichen Unsicherheit ist in der Logik der Tatsachen ziemlich eindeutig vorgeschrieben. Er führt in die menschliche Gemeinschaft. Die Anlehnung und das Gefühl der menschlichen Zugehörigkeit sind imstande, die Unsicherheit des Kindes zu bannen. Deshalb ist es Aufgabe der Erziehung, den Prozess des „Wurzelsschlagens“ zu fördern und das Heimatsgefühl für diese Erde zu erwecken.

Eine grosse Anzahl von Menschenkindern wachsen auf ohne Wurzel gefasst zu haben. Sie bewegen sich wie Fremdlinge unter

den anderen und schalten sich von den gemeinsamen Aufgaben aus. Der Varianten gibt es unzählige. Sie haben samt und sonders ihre Rechenaufgabe verfehlt. Wie eine solche trägt auch das Leben jedes Einzelnen seine Lösung, seine absolute Wahrheit in sich, nur dass wir sie schwer und unmöglich ganz errechnen können. Jeder beträchtliche Fehler verfällt der Kritik und der Strafe von Natur und Aussenwelt und stört die Einfügung in die Gesamtheit und in ihre Aufgaben. In dreifacher Bindung sind wir an die Gemeinschaft angeschlossen und dreifach müssen wir dieser Bindung Rechnung tragen: in der Gesellschaft, im Beruf und in der Liebe.

Die uns aufgegebenen Leistung setzt eine Bejahung der Gemeinschaft voraus. Dem entsprechend müssen die Vorbereitungen für's Leben bereits in der Kindheit getroffen werden. Das Kind darf nicht als Fremdling in seiner Umgebung aufwachsen, muss den Glauben an seine Leistungsfähigkeit erwerben, muss die Verlässlichkeit seiner Umgebung kennen lernen und seine Entfaltung in der Richtung der Gemeinschaft als wertvoll und richtig erfassen.

Diese Entwicklung zum Mitmenschen kann durch die Schwierigkeiten unseres irdischen Lebens leicht verhindert werden. Immer findet man dann Gründe, die in der frühesten Kindheit liegen. Sie sind nicht objektiver Natur, wenngleich verständlich. Sie kommen durch die unreife, fehlerhafte Anschauung des Kindes zustande, sind das einmal organische Schwächen, Krankheiten und Leiden und führen, obgleich sie sich mit der Zeit beheben lassen, zu einem frühzeitigen unverwischlichen Eindruck einer Feindseligkeit des Lebens, das anderemal berechnete oder unberechtigte Empfindungen der Lieblosigkeit mit dem gleichen Ergebnis. Auch die Verzärtelung führt zu einer übermässigen Bindung an den engsten Kreis und schafft eine lähmende Unsicherheit gegenüber allem Neuen.

Allen drei Typen kann es leicht widerfahren, dass sie sich wie im Feindesland finden und den Kontrakt mit dem Leben einbüßen.

Eine solche Stellungnahme zum Leben ist unweigerlich mit

einer vermehrten Berücksichtigung der eigenen Person, mit einer kämpferischen Haltung und mit einer feindlichen Rücksichtslosigkeit gegenüber anderen verbunden. Erst wenn man die ganze Technik des egozentrischen Lebens erfasst hat mit all seiner Unsicherheit gegenüber der Zukunft, mit dem Mangel an Zuversicherheit in die eigene Kraft, sobald sie sich aller Kunstgriffe und Tricks entschlägt, mit ihrer Entwertung fremden Lebensglücks und fremden Lebensschicksals, mit ihrer Drosselung des Gemeinschaftsgefühls und ihrem eitlen Streben nach eigener Machtbereicherung auf unkulturellen Wegen, begreift man die Isoliertheit solcher Seelen und ihr Abirren in die Neurose, in die Phantastik, und bei einiger erhaltenen Aktivität, in die Verwahrlosung, in das Verbrechen, in den Selbstmord.

Die Abbiegung, die Ausreisserei vom Wege der Gemeinschaft äussert sich frühzeitig in mannigfacher Weise. Aber vielleicht keiner der frühkindlichen Abwege ist so sehr Ursache und Folge zugleich wie die Isolierung, sei sie nun äusserlich oder seelisch erfassbar. Die richtige Vorbereitung für ein Leben in der Gemeinschaft wird dadurch unmöglich. Man unterschätzt die Notwendigkeit einer solchen Vorbereitung sicherlich auch heute noch. Sie ist Vorbedingung für den Umgang mit Menschen, für Berufswahl und Berufsfertigkeit, für Ausbildung der moralischen und ästhetischen Gefühle, für Einfügung in neue Verhältnisse, für Ausbildung der logischen und sprachlichen Funktionen und für die einwandfreie Anknüpfung von Freundschafts- und Liebesbeziehungen. Sie ist auch Vorbedingung für die Toleranz gegenüber Schwierigkeiten und Niederlagen in Haus, Schule und Welt.

Die richtige Vorbereitung für's Leben ist aber immer nur in der Gesellschaft möglich, so wie das Schwimmen lernen nur im Wasser gelingt. Die kleinen aber so wichtigen Technicismen der Haltung der Arme, der Beine, Ausdrucksformen der Sprache, Gedankenablauf, die Stellung des Gefühls und Affektlebens und Triebbefriedigung kann für die Gesellschaft geeignet nur innerhalb der Gesellschaft erlernt werden. Deshalb ist es notwendig das Kind so früh als möglich unter allen zuträglichen Vorsichtsmassregeln den Beanspruchungen des grösstmöglichen Kreises aus-

zusetzten, auch zu verhindern, dass seine Seele sich dort isoliere.

In der Praxis des Lebens wird sich diese Forderung derart ausgestalten müssen, dass das Kind bereits innerhalb der Familie in seinen Anschluss an die Familienmitglieder nicht gestört wird, weder durch Lieblosigkeit, noch durch einseitige Bindung an einen der Elternteile. Auch Zwistigkeiten unter den Eltern, Zank und Streit verhindern den Kontakt ebenso wie der Druck einer aufgezwungenen Autorität. Nötigung, Nörgelei und Behinderung einer selbstständigen Entwicklung führen gleichfalls zur Unsicherheit und Entmutigung des Kindes und stören seine Anschlussbereitschaft. Isolierungstendenz der Familie und Entmutigung der Mutter oder des Vaters, auch ihr Bangemachen vor der Zukunft rauben dem Kinde leicht den Glauben an sich selbst und beeinträchtigen seine Kontaktfähigkeit. Diese Entmutigung kann ganzé Klassen, Nationen oder Staaten ergreifen.

Das Bild des isolierten Kindes ist nicht immer leicht zu erkennen. Die Bedeutung der Isolierung wird fast immer verkannt. Diese scheuen, schüchternen, verschlossenen Kinder, die keine Freunde haben, oder nur solche, die sich von ihnen beherrschen lassen, die oft unausgesetzt Bücher lesen und in Tagträumen schwelgen, sind für Mitarbeit und Mitmenschlichkeit nicht immer leicht zu gewinnen. Ihre Eitelkeit und Empfindlichkeit ist erschreckend gross und macht sie zum Mitspielen ungeeignet. Mut zeigen sie nur in der Fantasie oder wie zum Prunk. Bei kleinen Schwierigkeiten oder Misserfolgen nehmen sie sofort Reissaus und fallen leicht der Entmutigung anheim. Ausreden, Lügen und Vorwände trifft man oft als Zeichen der schlechten Einfügung in die Forderungen der Gemeinschaft, ebenso Fremdheitsgefühle, bohrende Unzufriedenheit, Ungeduld und mangelndes Verständnis für Nebenmenschen. Ihr Leben mutet uns ebenso fremd an, wie sie sich als Fremdlinge auf dieser Erde fühlen, mit ihrer kleinlichen Eitelkeit, als ob sie sich nur für höhere Sphären geschaffen glauben.

In ihrer Vorgeschichte findet man immer, dass sie nur an eine einzige Person ihr Leben, ihr Denken und ihre Neigung geknüpft haben. Die ganze Ausdrucksform ihres Lebens beweist

es, dass sie sich stets dieser Person, meist der Mutter, seltener des Vaters, der sich schlechter dazu eignet, oder einer Pflegeperson bemächtigen, über sie verfügen wollen. Ihr ganzes Geltungsstreben und ihr ganzes Gemeinschaftsgefühl erstreckt sich auf diese eine Gestalt. Alle andern werden mit den Zeichen des grössten Misstrauens, mit Angst oder Hochmut abgewiesen. Bei allen leiblichen und geistigen Funktionen suchen sie die Beteiligung ihrer Begleitperson zu erzwingen, sind zu dem Zwecke gehorsam und lauern auf jeden Wink oder verweigern in offenem und versteckten Trotz jede Einfügung in die sociale Ordnung. In beiden Fällen erreichen sie, dass man ununterbrochen mit ihnen beschäftigt ist.

Da jede selbständige Entwicklung auf diese Weise verhindert wird, sind die Folgen meist ausserordentlich schlimm. Jede Situationsänderung, — Kindergarten, neue Bekanntschaft mit Kindern und Erwachsenen, die Schule, die Fremde, — erfährt eine ängstliche oder trotzig Ablehnung. Ja das Essen, Ankleiden, Schlafengehen, Waschen, besonders aber das Aufmerken und selbständige Lernen sind immer Anlässe die zugehörige Person zum Dienst heranzuziehen. Auch die Nachtruhe bildet keinen ruhevollen Abschluss: sie wird durch nächtliches Aufschreien, durch Bettnässen, durch unruhigen Schlaf gestört, und oft wird die gesuchte Verbindung wieder hergestellt, indem durch Arrangement von Angst das Kind die Mutter zwingt, es zu sich ins Bett zu nehmen. Dass jede Krankheit bei dieser Lebensmethode im gleichen Sinne ausgenützt wird, dass das Kind aus einer wirklichen oder gespielten Kränklichkeit ein Privilegium gestaltet, um sich der einen Person zu versichern und von allen Anforderungen befreit zu sein, die andere Bindungen benötigten, ist leicht zu bemerken.¹⁾

¹⁾ Ausführliche Darstellungen dieser Fehlschläge finden sich in Adler. Ueber den nervösen Charakter III. Aufl.

„ Praxis und Theorie der Individualpsychologie, II. Aufl.

„ Furtmüller und Wexberg, Heilen und Bilden, II. (Verlag Bergmann, München) und in der „Internationalen Zeitschrift für Individualpsychologie (Verlag Perles, Wien I und Verlag Kegan Paul, London EC4).

Neben den täglichen und stündlichen Belästigungen und Lebenserschwerungen, die von solchen Kindern ausgehen, werden wir sie in allen körperlichen und geistigen Funktionen im Nachteil sehen. Ihre Anlehnung an eine zweite Person hat sie aller Vorbereitungen überhoben, und alle die tausend kleinen, feinen Technicismen der Hände, der Finger, der Füße, der Beine, der gesamten Muskulatur, aber auch des sprachlichen Ausdrucks, der logischen Entwicklung ihrer Gedanken, der Anknüpfung an Menschen und Aufgaben, der Aufmerksamkeit und der Konzentration sind ihnen nicht zu eigen geworden. In der Schule, bei der Arbeit, im Leben werden alle diese Vorbereitungen stillschweigend vorausgesetzt. Nun geraten diese Kinder ins Hintertreffen. Jede neue Situation bedroht sie mit neuen Schwierigkeiten und neuen Enttäuschungen. Jede Niederlage raubt ihnen ein Stück ihres Mutes, bis sie sich gekränkt, entmutigt, verbittert zurückziehen, um in der Isoliertheit zu enden, aus der sie gekommen sind. Als unfähig, als Sonderlinge gebrandmarkt, halten sie keiner Prüfung stand, werden vielmehr durch jede neue Prüfung aufs Neue zurückgeworfen. Am ehesten taugen sie noch für Aufgaben, zu denen es möglichst wenig Vorbereitungen bedarf oder zu denen die Vorbereitungen leicht nachzuholen sind.

Unausgesetzt sind sie in einer rätselhaften Stimmung einer Erwartung. Wie in der Kindheit erwarten sie alles von einem andern, von einem Zufall, von einem plötzlichen Glücksfall, von der Vorsehung, von einem Wunder. Immer möchten sie von ihrer eigenen Mitwirkung und Mitarbeit absehen. Zuweilen stehen sie bei einer Steigerung dieser Stimmungslage unter dem Gefühl einer Prädestination, als ob sie auserkoren, einzigartig, auserwählt und des endgültigen Sieges sicher wären. Die jedesmaligen Enttäuschungen schreiben sie immer ihrem „Pech“ zu oder sie legen sie anderen zur Last, ruhig und affektlos, als ob sie auf die Ungerechtigkeit dieser Welt gefasst gewesen wären, oder unter heftigen kritischen Ausfällen und Anklagen gegen die Gesamtheit der Menschen. Solange die Entmutigung nicht allzuweit vorgeschritten ist, trösten sie sich mit der Zukunft oder suchen

kleine, nebensächliche, meist wertlose, zuweilen bizarre Betätigungsgebiete auf, die sie ferne von jeder menschlichen Kritik ausbauen. Später verlassen sie fluchtartig jeden Kreis, der ihre Eitelkeit verletzt hat, wechseln ihren Beruf, ihren Aufenthalt, ihre Umgebung, bis sie völlig entmutigt als Sonderlinge sich in ein Mauselloch zurückziehen und dort in Abgeschiedenheit ihren Sonderbarkeiten obliegen.

Solange sie noch versuchen den Forderungen des Lebens in ihrer Art gerecht zu werden, gehen sie nie ohne Gegengründe, ohne Ausrede, ohne Zweifel, ohne Pessimismus ans Werk. Jeder Prüfung suchen sie auszuweichen. Aus ihren Erinnerungen und Erfahrungen steigen ihnen immer nur die schlimmen ins Bewusstsein. Zögernd und mit halber Kraft stehen sie dem Prüfenden gegenüber und erwecken meist ein schlechtes Vorurteil. Oft sucht sie der Spott ihrer Kameraden heim, und da ihnen alle Vorbereitungen für eine selbständige Behauptung ihrer selbst abgeben, fallen sie jedem gerechten oder ungerechten Angriff zum Opfer. Ueberblickt man ihr Leben und ihre Schicksale, so versteht man ihre Entmutigung, wenn man sie auch nicht billigen kann, und man sieht ihre weltferne Eitelkeit, wenn man sie auch nicht rechtfertigen kann.

Unsicher in allen Lebenslagen sind sie auch kaum instande, ihr erotisches Problem zu lösen. Sind es Männer, dann entschlagen sie sich der Werbung, warten misstrauisch auf die Erlösung und schrecken selbst im günstigsten Falle vor der Entscheidung zurück. Tragen auch allerlei Schwierigkeiten zusammen, entdecken zahlreiche Hindernisse und verfallen häufig in den Wahn einer vermuteten Homosexualität, glauben dadurch einen rettenden Fels gefunden zu haben, um einer normalen Lösung zu entgehen. Immer steht drohend vor ihnen ihre Eigenliebe und Eitelkeit und scheucht sie zurück, um einer gefürchteten Niederlage vorzubeugen. Die Mädchen hinwiederum, die in Isolierung aufgewachsen sind, werden ihrer Freuenrolle bald überdrüssig, versuchen eine Zeit lang den Mann zu spielen, in den mannigfachsten Formen und enden oft in Altjüngferlichkeit oder in einer verdrossenen, misvergnügten Ehe. Alle die zahlreichen

Varianten dieses Typus stehen demnach hart vor der Gefahr einer endgültigen Ausrottung von dieser Erde, fördern sie gelegentlich auch durch Selbstmord und schwere Psychosen, ein weithinsichtbares Zeichen, wie wenig sich ihre Art, die eigentlich eine Unart ist, für diese Erde und für die Logik des menschlichen Zusammenlebens eignet.

Wer sich ein einfaches aber klares Bild von den Gefahren der Isolierung machen will, kann dies zum kleinen Teil an Menschen studieren, die seit längerer Zeit taub geworden sind. Die Folgen sind nicht so schwerwiegend wie bei frühzeitiger Isolierung des Kindes, da diese Verarmten immerhin von dem Vorrat ihrer Kontaktfähigkeit und ihrer Vorbereitungen aus der Zeit ihrer Gesundheit schöpfen können. Immerhin wird man bald bemerken, dass sie schwerfälliger sprechen, einzelne Silben verstümmeln, und dass sie mit wachsendem Misstrauen und mit zunehmender Neigung zur Isolierung ihr Leben verbringen und nicht selten als Sonderlinge enden.

The Dangers of Isolation

by

Dr ALFRED ADLER, VIENNA.

A man and his life can be known only from his attitude towards his fellow-men and from the solutions he offers to the inevitable problems of social life. The value and significance of a thought, a deed, or a brilliant achievement lie solely in their quality of contributing to the advancement of humanity in general. All the great creations of single or collective minds, laws, religions, works of science and art, derive meaning and value only in so far as they have been of temporary or permanent benefit to mankind.

As compared to Nature, man has been poorly equipped. Even our present culture, with all its auxiliaries, is not yet sufficiently developed to ensure him a life free from care. The process which Nature wages against us is a hard and merciless one. The strain which it puts on us, the transitory nature of all things earthly, and further the helplessness of our early years, beget in every soul a sense of insecurity and inferiority which necessarily produces a striving after the amelioration of the human state.

The way towards mitigating the insecurity of childhood is fairly clearly prescribed in the logic of facts. It leads to human intercourse. Contact and the feeling of belonging to someone are able to banish the child's sense of insecurity. It is therefore the task of the upbringing to promote the process of "taking root", and to awaken the home-feeling for this world.

Numbers of people grow up without having taken root. They live among others like strangers and cut themselves off from the duties of social life. The varieties of this type are countless.

They have wholly failed in the task set them. Like an unsolv-

ed problem, so the life of every individual has its solution and its absolute truth, only to some it is hard and even impossible to work it out completely.

Every mistake of any importance incurs the criticism and penalty of Nature and of the outer world, and disturbs the union with one's fellowmen and its associated duties. We are bound to the community by a three-fold tie, and three-fold are the factors that have to be reckoned with, viz. Society, our calling, and love.

The capacities with which we are endowed presuppose the communal life. Consequently the training for life must take place in childhood. The child must not be allowed to grow up like a stranger in his surroundings, must gain belief in his own powers, must learn to put faith in his environment and must apprehend his development along social lines as right and valuable.

This growth into fellow-men is apt to be hampered by the difficulties of our earthly life, and causes for it will always be found to lie in early childhood. They are not of an objective nature, although comprehensible. They arise from the immature and faulty views of childhood: now organic weakness, illness and suffering which, although suppressed, will in the course of time lead to a premature and indelible impression of a hostile world, or again they are the justified or unjustified impression of lovelessness, with the same result. Petting a child will also lead to an excessive clinging to the narrowest of environments and create a paralysing feeling of insecurity towards everything new.

All three types will be apt to feel as if they were in a hostile country, and will lose their contact with life.

Such an attitude towards life is undeniably allied to an inordinate retrospection of self, with an unfriendly bearing, a ruthless hostility towards others. Not until one fully grasps the entire technique of a self-centred life with all its doubts of the future, its lack of confidence in its own powers when shorn of all artifice and tricks, with its belittling of the joys and sorrows of others, with its blunting of the social feeling and its vain striving to attain supremacy along non-intellectual paths, not

until then will one fully understand the isolation of such souls and their aberrations into neurosis, phantasms, and, if persisted in, into loose habits, crime and suicide.

The deviation, or digression, from the paths of social life is early manifested in many ways. But perhaps none of the wrong paths pursued by young children is at once cause and effect so much as isolation, whether of mind or body. The proper training for a life lived among other people is thereby precluded. The necessity for such a training is without doubt still underrated at the present day. It is essential for intercourse with one's fellow-men, for the choice of a profession, for efficiency in one's calling, for the cultivation of the moral and aesthetic senses, for adaptability to new relations, for the development of the functions of reason and speech, and for forming pure bonds of friendship and love. It is also an essential for forbearance in the difficulties and humiliations in the home, the school and the world.

The proper preparation for life is, however, only possible in intercourse with others, just as swimming can only be learned in the water. The small, though all important technicalities in the use of the limbs, the forms of speech, the trend of thought, the state of the feelings and passions and the gratifying of sexual desire, fit and proper for social life, can be acquired only in social life. It is therefore necessary, with the proper precautions, to make the child feel at a very early age the claims of as wide a circle as possible, but also to prevent his soul from isolation there.

In practical life these claims must not be allowed to interfere with the child's relations towards the other members of the family, neither by a lack of love nor by a one-sided attachment to one or other of the parents. Discord between parents, quarrelling and strife will hinder the contact as much as the constraint of enforced authority. Coercion, chiding and the hindrance of independent development tend to discourage the child, to deprive him of confidence and check his inclination for the society of others. Any isolating tendency in the family, discour-

agement from the side of father or mother, or awakening of fear for the future, may easily rob the child of faith in himself and consequently his capacity for contact. This discouragement may seize whole classes, nations or States.

The type of an isolated child is not always easy to recognize. The meaning of isolation is almost always misunderstood. Those shy, timid, reticent children, who have no friends or only such as allow themselves to be ruled by them, who are generally voracious readers and who revel in day-dreams, are ill-adapted to live and work with others. Their self-conceit and sensitiveness are excessive and render them unsuited for joining in games. They show courage only in fancy and show. When they meet with little difficulties or failures they take to flight and are easy preys to dejection. Evasiveness, lying and pretence are often met with as symptoms of their inability to adapt themselves to the claims of social life, as is also evinced by a feeling of strangeness, fretting discontent, impatience and want of comprehension of others. To us their lives seem as strange as they, with their petty vanities, feel strange upon this earth, as if they believed themselves destined for higher spheres.

Their previous history shows that their lives, their thoughts, and their desires were invariably centred in a single person. The entire course of their conduct proves that they have always ruled this person, generally the mother, more seldom the father as he is not so apt to submit to this, or some nurse, and will have such person at their command. Their one aim and what they possess of social feeling is confined to this person. All others are repulsed with tokens of the greatest distrust, fear or hauteur. Every physical or mental function they would have shared by this companion; to this end they will be obedient and attentive to every sign, or, with visible or secret pride, will refuse to take their place in the community. In either case they succeed in securing undivided attention for themselves.

Any independent development being frustrated in this way, the consequences are generally disastrous in the extreme. Every change in situation — Kindergarten, new acquaintances with

children or adults, school, strangers — meets with a frightened or haughty rebuff. Even the exercises of eating, dressing, going to bed, washing, and especially of observation and learning, are all reasons for calling in the help of this chosen companion. Even the night brings no restful close to the day; it will be disturbed by crying, enuresis, uneasy slumber, and frequently the desired contact is regained owing to the child's pretence of fear forcing the mother to take him into bed beside her. It goes without saying that in cases of this kind any illness will be taken advantage of in the same way, and that the child will make use of every real or pretended indisposition to demand the privilege of securing the one person's services and of being absolved from all claims which other ties might bring.¹⁾

Besides the daily and hourly trouble and affliction which such children cause, we find that they are backward in all physical and mental functions. Their reliance upon a second person has obviated the need of training themselves. None of the multitude of little delicate mechanisms of hands, fingers, feet and legs, of the whole muscular system, as well as the mode of expression, the logical development of their ideas, their attachment to people and tasks, their observation and concentration — none of these has been acquired. But at school, at work and in life this training is supposed to have taken place. Such children now fall behind. Each new situation menaces them with fresh difficulties and more disappointments. Every failure robs them of some of their courage, until hurt, discouraged and embittered, they shrink back into the state of isolation from which they came. Branded as incapable, as odd, they cannot stand a single test, but rather are thrown back afresh by each new trial. They are still best fitted either for

¹⁾ Detailed instances of these are to be found in *Adler: Ueber den nervösen Charakter*, III. Edition.

Adler. Praxis und Theorie der Individualpsychologie, II. Edition.

Furtmueller und Wexberg: Heilen und Bilden, II. Ed. Published by Bergmann, Munich, and in the *Internationalen Zeitschr. f. Individualpsychologie* Publ. Perl, Vienna I. and Kegan, Paul and Co. London E. C. 4.

tasks which need the least preparation or for which the lack of preparation can be most easily supplied. They are constantly in an unaccountable state of expectancy. Just as in childhood they expect everything from another, from chance, from a sudden stroke of good fortune, from Providence, from a miracle, but always without their own co-operation and without their own efforts. Sometimes, under an access of this mood, they are obsessed by a feeling of predestination as if they were the elect, unique in their kind, and therefore certain of victory. The disappointment that infallibly follows they ascribe to "bad luck", or they lay the blame of it on others, calmly and coolly as if resigning themselves to the injustice of the world, or with violent critical outbursts and complaints against the entire universe. As long as their discouragement is not too great, they comfort themselves with the future, or seek out some trifling, generally useless, and sometimes eccentric form of occupation, which they carry on far removed from human criticism. In later years they shun every society which has wounded their vanity, will change their occupations, their residence, their surroundings, till completely disheartened, they retire like a hermit into their cell and there give themselves up to their eccentricities in solitude.

While still endeavouring to discharge their obligations towards society they never set to work without objections, without doubts, without an excuse, without pessimism. Every test they seek to evade. Of their experiences and recollections only the worst come to mind. Hesitatingly and half-heartedly they face the ordeal and generally create a bad impression. Frequently they are the butt of their comrades' ridicule and, as they lack the habit of asserting themselves, they fall a victim to justified or unjustified attacks from every side. If one surveys their life and fate, one can understand their discouragement though unable to account for it, and one condones their inordinate vanity even if one cannot justify it.

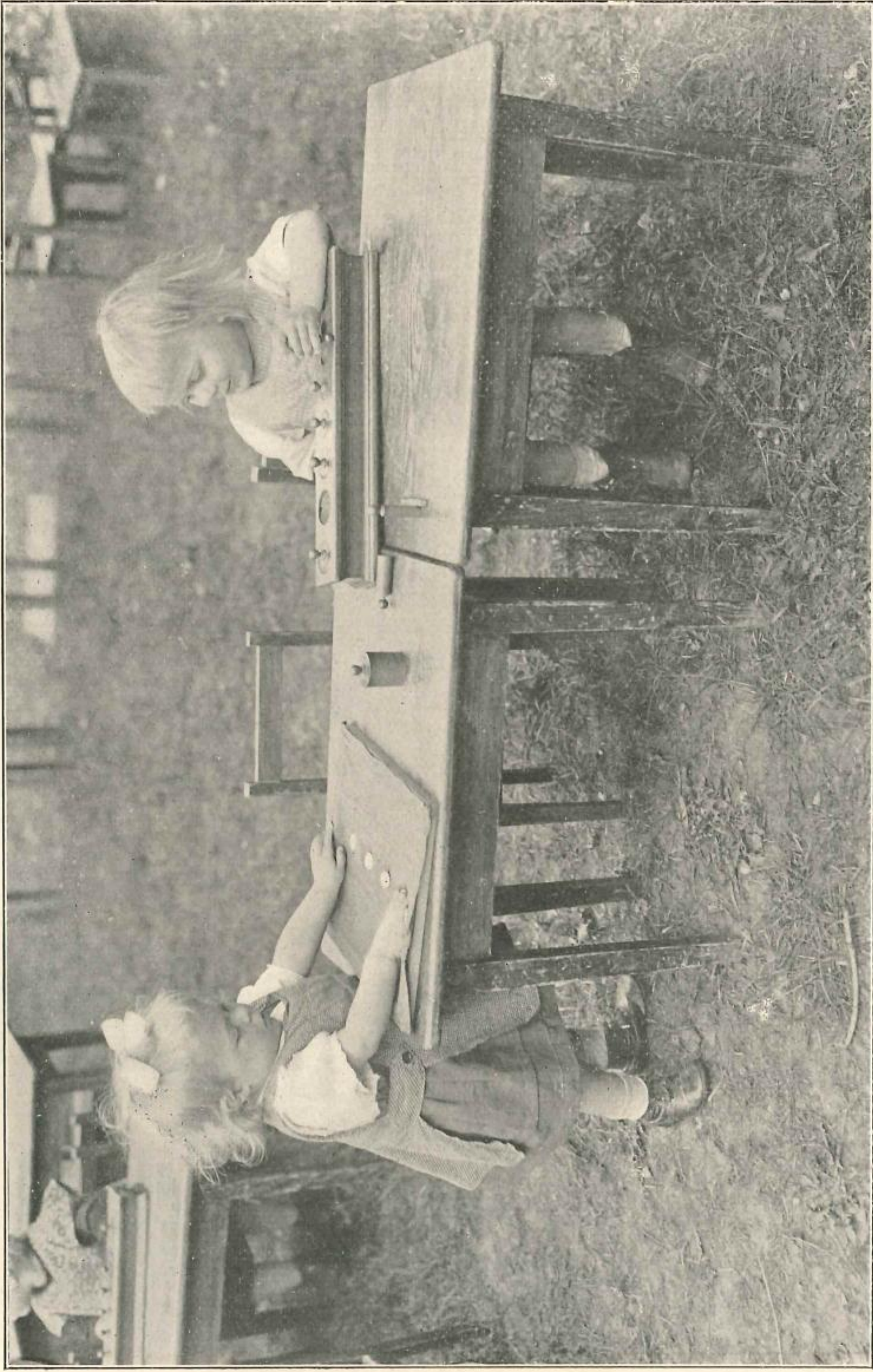
Irresolute in every situation of life, they are scarcely able to solve their own erotic problems. If men, they shirk wooing, fearful of the issue, and draw back even in the most favourable

cases before the decisive moment. They pile up all manner of difficulties, discern countless obstacles, and frequently fall into the mistake of supposing themselves to be homo-sexual, clinging to this delusion as a saving rock, thereby to evade a normal solution. Their self-love and vanity stand ever threatening before them and drive them back in fear of the dreaded rebuff.

The women, on the other hand, who have grown up in isolation, soon weary of their woman's rôle; they will attempt for a time to play the part of men in every imaginable way, and often end in old-maidishness or in an embittered and disappointed marriage.

All the numerous variations of this type stand in danger of an ultimate extinction, hastening the process sometimes by suicide or severe psychosis, a clear sign how ill their nature, which is really degeneracy, is fitted for this world and for the logical society of their fellow-men.

Those who wish to form a simple but clear conception of the dangers of isolation can do so to a certain extent by studying persons who have been deaf for long years. The consequences are not so serious as those arising from premature isolation of the child, since those afflicted with deafness are still able to fall back upon their former faculty of contact and training previous to their affliction. In any case it will soon be noticed that their speech becomes difficult and that they stumble over some sounds; they grow suspicious, show an increasing tendency for isolation, and not seldom end their lives as eccentrics.



The youngest children (of $2\frac{1}{2}$ years) in the "Montessori Children's Home" at Lankwitz near Berlin.



Lessons in practical life: washing the dishes in the Montessori School at Berlin,

Von dem „Hause der Kinder“ in Berlin-Wilmersdorf.

Aus dem Tagebuch der Leiterin.

Die ersten fünfzehn Kinder für die neu zu eröffnende Montessori-klasse im Februar 1923 waren angemeldet worden; sie kamen alle pünktlich um 9 Uhr, von ihren Müttern begleitet. Im Vorraum vertauschten sie ihre Stiefelchen mit den Hausschuhen, zogen ihre neuen Aermelschürzen an, und dann traten sie ein. Die Kinder und ich, wir gingen an unser Tagewerk. Das Gefühl der Weihe, das bei Beginn eines Werkes empfunden wird, lag über uns; aber es wurde nur empfunden, nicht ausgesprochen. Ich schrieb damals in mein Tagebuch: „Ich nahm jedes Kind an der Schwelle des Arbeitszimmers in Empfang, begrüßte es und wies ihm den Haken an, an dem es sein Handtuch und seinen Beutel mit Kamm und Bürste aufhängen sollte. Schon das interessierte jedes Kind sehr. Dann gab ich einigen Kindern Staubtücher, anderen Besen und zeigte ihnen, wie sie die Geräte gebrauchen sollten. Die Tische und Stühlchen, Turm und Treppe wurden auf's Sorgfältigste abgestaubt und bestimmte Teile des Raumes wurden eifrig gekehrt. Als das Interesse an der Hausarbeit nachzulassen begann, setzten wir uns an die Tische. Da hiess es vor allem, sich richtig setzen zu lernen, ohne Geräusch aufzustehen und sich leise wieder hinzusetzen, das Stühlchen beim Heben und Tragen richtig anzufassen. Mit grossem Ernst und Eifer wurde das alles gemeinsam geübt. Ein schmutziges Händchen, das Konrad an der schönen reinen Schürze abwischen wollte, gab Anlass zum Unterricht in Händewaschen. Einer der kleinen Waschtische wurde in die Mitte des Zimmers gebracht, das Waschgeschirr wurde wieder ordentlich darauf gestellt, und nun wurde das Händewaschen gezeigt. Anfänglich sahen alle Kinder aufmerksam zu, gegen Ende der Uebung jedoch wurde hier und dort

eine Stimme laut: „Ich möchte jetzt mit den Spielsachen spielen!“ Bald beschäftigten die Kinder sich mit dem Material. Es herrschte dabei Ruhe und Ordnung, trotzdem die Kinder ihre Beschäftigung fortwährend wechselten.

Nach dem Frühstück griffen sie wie selbstverständlich erneut zu dem schönen Spielzeug und beschäftigten sich damit bis gegen 12 Uhr. Dann kamen nach und nach die Mütter, sahen noch bei den Uebungen auf dem Strich zu, und am Ende wurde es den Kindern und den Erwachsenen schwer, nach Hause zu gehen.

Zu diesen ersten 15 Kindern gesellten sich bald mehr und mehr. Ende Mai waren es 32 Kinder, und diese Zahl angemeldeter Kinder hielt sich den ganzen Sommer hindurch. — Die Arbeit im Hause der Kinder war von Anfang an leicht. Es gab kaum eine Disziplinfrage zu lösen, einzelne Fälle ausgenommen, die aber keine wirklichen Schwierigkeiten darstellten. Die schönen, hellen Räume, die hübsche Umgebung, die grosse Bewegungsfreiheit, die Möglichkeit, sich vielseitig und angemessen zu betätigen, all das trug dazu bei, die Kinder glücklich und zufrieden zu machen. Es fehlte jede Gelegenheit zur Langeweile oder zum Verdruss, und wenn hie und da bei einem eigensinnigen Kinde der Trotz doch einmal die Hörnchen hob, war das Erstaunen der anderen Kinder so stark und so augenscheinlich, dass es kaum anderer Mittel bedurfte, um der Unart ein Ende zu machen.

Konrad, dessen Vater Kunstmaler ist, sagte eines Morgens: „Vater ist heute gekommen, um unsere schönen Räume anzusehen. Er hat gesagt, er möchte es auch noch einmal so gut haben, wie wir es haben!“

Während der ersten Monate vervollständigten wir allmählich die Einrichtung, und jedes neue Möbel, das erschien, rief bei den Kindern neue Freudenausbrüche hervor. Sie lieben auch jetzt noch jeden Gegenstand in ihrem Hause.

Die Mütter erzählen oft, dass die Kinder ihnen zu Hause keine Ruhe lassen, weil sie nachmittags wieder ins Haus der Kinder gebracht werden möchten; manche Kinder können morgens die Zeit nicht abwarten, um hinzukommen. Juliane, die von Anfang

an bei uns war, legt es noch immer darauf an, morgens die erste im Kinderhaus, wenn möglich, sogar noch vor mir da zu sein, damit, wenn ich komme, alles von ihr abgestaubt und in Ordnung gebracht ist.

Vor kurzem brachte sie mir glückstrahlend einen Fünflire-schein, den sie von ihrem Vater, der z. Z. in Italien weilt, weil wir Geld brauchen, erbeten hatte. Wochenlang hatte sie das grosse Geheimnis mit sich herumgetragen.

Ich habe in diesen Tagen, um ein sicheres Bild der Arbeit in den letzten Monaten zu bekommen, vielfach mein Tagebuch durchgeblättert, und ich fand es sehr interessant, die Entwicklung einiger Kinder zu verfolgen.

Miriam war von Anfang an rührig, voller Initiative und Originalität.

Am ersten Tag, als ein Wassereimer umgegossen worden war, sprang sie auf, holte Schrubber und Scheuertuch und wischte so gut auf, als wenn sie das bis dahin schon täglich getan hätte. Ihre Neigung geht jedoch weniger auf häusliche Arbeiten, als auf Sinnes- und Geistestätigkeiten. Sie hat sich in diesen Monaten an dem Material zur Sinnesausbildung so gründlich geübt, dass sie mit ihren 4½ Jahren feinere Sinneswahrnehmungen hat als mancher Erwachsene. Ihr Lieblingsspiel sind noch heute die Farbtäfelchen. Sie hat monatelang ganze Vormittage damit verbracht, 64 Farbtäfelchen zu paaren, oder sie abzustufen, wobei sie immer wieder versucht hat, neue Farbenharmonien herzustellen, oder durch das Farbenmuster, das sie entstehen liess, das weisse Tischchen auf immer neue Weise zu verzieren. Vor kurzem benutzte sie ein zierliches Blumenväschen mit Tausendschönchen als Mittelpunkt, und ringsherum legte sie aus den Farbtäfelchen ein neues, schönes Muster.

Durch die viele Uebung hat sie ein solches Farbengedächtnis erlangt, dass sie fähig ist, nachdem sie allerhand andere Aufträge ausgeführt hat, unter 64 Farbtäfelchen die Schattierung herauszufinden, die ich ihr vorher einen kurzen Augenblick lang gezeigt hatte. Aber ihre Leistungen an sich sind nicht das Interessanteste, sondern die Art, in der sich ihr ganzes Wesen

äussert. Sie übt eine starke Anziehungskraft auf andere Kinder aus, die sich gern in der Arbeit zu ihr gesellen; und sie ist fähig, sie nicht nur in ihrer Begeisterung mit fortzureissen, sondern man hat das Gefühl, als zöge sie das schwächere Kind mit sich empor. Sie nimmt meistens schwere Uebungen, zu deren Ausführung viel Zeit erforderlich ist, vor; jede Uebung wird von ihr und ihrem kleinen Partner bis zum Ende durchgeführt, dann hüpfen sie jubelnd um die fertige Arbeit herum, und schliesslich legen sie alles ordnungsmässig an seinen Platz. Miriam ist immer interessiert, immer begeistert, immer fröhlich gestimmt. Seitdem auch ihr kleiner Bruder bei uns ist, zeigt sie sich mütterlich um ihn besorgt.

Trude ist ein ganz anderes Kind. Sie ist ruhig, geordnet und gleichmässig. Monatlang hat sie tagtäglich mit ihrem Schwesterchen Ursula, an demselben Tischchen, auf denselben Stühlchen gesessen, und wehe, wenn andere Kinder sich erlaubt hätten, ihre Plätze einmal einzunehmen.

Monatlang haben die beiden Schwesterchen Tag für Tag, erst aus den 3 Blöcken die Einsatzcylinder der Reihe nach herausgenommen und wieder eingesetzt, später sich mit den Farben und den geometrischen Figuren beschäftigt, und sie haben das ganze Sinnesmaterial fast programmässig durchgeübt.

Trudes Sicherheit im Erkennen von Farben, Tönen und Formen ist vielleicht noch grösser, als die von Miriam. Erwachsene Besucher, auch die Hospitantinnen des Montessori-Ausbildungskurses, haben mit grossem Erstaunen beobachtet, wie schnell und genau Trude ein Sieben- von einem Achteck unterscheidet und wie sie alle Vielecke mit dem ersten Blick erkennt.

Wenn ich auf einem der abgestimmten Glöckchen einen Ton anschlage, *Trude* dann irgend einen gleichgültigen Auftrag gebe, und sie, nachdem sie ihn ausgeführt hat, bitte, dasselbe Glöckchen unter den 15 anderen durch Anschlagen herauszufinden, so kommt es selten vor, dass sie sich auch nur um einen halben Ton irrt. — Vor einiger Zeit begann sie damit, die Buchstaben aus Sandpapier zu berühren, d. h. sie mit den Fingerspitzen nachzuziehen. Auch das tat sie mit ihrer gewöhn-

lichen Ruhe und Ordnung; nur machte sich eine grössere Lebendigkeit in ihrem Wesen bemerkbar. Die Freude an den Buchstaben, deren Namen sie sehr leicht und schnell lernte, war so gross, dass sie immer leise hüpfte, wenn sie mir die Namen neuer Buchstaben nannte, oder die Silben, die sie aus den Buchstaben zusammengestellt hatte, sagte.

Nun legt Trude seit einigen Tagen Wörter aus dem beweglichen Alphabet, und es gibt dabei für sie kaum Schwierigkeiten zu überwinden. Sie legt schon Worte mit Dehnungen und verdoppelten Konsonanten. Vor kurzem begrüsst sie mich sehr lebhaft mit folgender Erzählung: „Denken Sie, Frl. O! Ich habe diese Nacht geträumt, ich hätte den ganzen langen Tisch voll Wörter gelegt und es waren auch solche dabei, wo die grossen Leute ein *h* oder ein *e* hineinschreiben. Sie wissen doch, solche Wörter wie Wiese. Ist das nicht komisch?“ Zu ihr gesellt sich seit drei Tagen Beate, und es ist immer ein Wettstreit unter ihnen, wer die meisten Wörter legen kann. Als mein Vorrat an leichten Wörtern für einen Augenblick erschöpft war, und ich keine Wörter zu nennen wusste, kamen sie auf den Gedanken, die Namen aller Kinder zu legen, eilig, damit nicht eine der anderen die Namen wegschnappte.

Hanno, der im nächsten Februar erst 5 Jahre alt wird, fängt jetzt auch mit dem Berühren der Sandpapierbuchstaben an. Vor kurzem rief er voller Begeisterung: „Frl. O., Buchstaben machen, macht Spass!“ Wer den Hanno, der vor einigen Monaten zu uns kam, gekannt hat, würde ihn in dem heutigen Hanno nicht mehr erkennen. Ich weiss nur, dass in meinem Tagebuch immer wieder der Satz vorkommt: „Hanno ist immer noch sehr störend!“ oder, „Hanno ist ein Sonderling. Entweder steht er herum, geht von einem Tisch zum anderen, ohne etwas Richtiges zu tun, oder er hängt sich an ein anderes Kind und lässt ihm keine Ruhe. Er setzt sich immer wieder zu ihm hin, versucht, seine Tätigkeit nachzuahmen, hindert es aber dabei an seiner eigenen Arbeit.“ Jetzt ist dieser Hanno vollkommen selbstständig und seine Selbstdisziplin lässt nichts zu wünschen übrig.

Von einem anderen, interessanten Jungen möchte ich noch

erzählen. Er war noch bis vor kurzem der typische Friedensstörer. Wo er konnte, stiftete er Unruhe und Unordnung; er war lange Zeit nicht einmal fähig, auf meinen Ruf zu achten, und wenn ich ihn am Arm nahm und ihm die Folgen seiner Missetaten zeigte, zwinkerte er nur nervös mit den Augen und lächelte mich an. Ich nahm mich seiner sehr an, sprach mit seiner Mutter, erkundigte mich eingehend nach seinen Gesundheitsverhältnissen und nach seinen Gewohnheiten. Ich fing an, manches zu verstehen und ich bat die Mutter sich in der Erziehung ihres Kindes so viel wie möglich nach den Erziehungsprinzipien der Montessori-Methode zu richten. Sie ging bereitwillig auf meine Vorschläge ein. Vor kurzem sagte sie mir: „Wissen Sie, dass wir seit acht Wochen unseren Jungen nicht mehr zu schlagen brauchen? Er hat sich sehr geändert; auch mein Mann sagt, man merkt es ordentlich an seiner Gesundheit.“ Auch im H. d. K. hat sich eine grosse Veränderung in dem Benehmen des Knaben gezeigt. Er ist nicht nur ruhiger, geordneter, arbeitsamer, er ist auch fröhlicher und zufriedener geworden. Seine Zufriedenheit drückt sich oft in kleinen Zärtlichkeiten aus, die er mir ganz zaghaft erweist. —

Die 3-jährige *Marianne* ist immerfort mit Eimer, Scheuertuch und Schrubber beschäftigt; jedes freie Eckchen muss sie feucht aufwischen und mit grösstem Ernst und wichtiger Miene erfüllt sie Tag für Tag ihre selbstgewählten Pflichten. — *Ulla* hatte zuerst eine lange beschauliche Zeit, sie schien immer zu überlegen, immer über etwas zu brüten. Wochenlang nahm sie täglich denselben Cylinderblock, oder einen und denselben Knopfraumen. Jetzt ist sie eine flinke kleine Arbeitsbiene geworden, die sich wie alle anderen Kinder fröhlich bewegt, ihre Arbeit gut wählt und mit ihren 3 Jahren sich sogar mit Erfolg an die Buchstaben wagt. Die Eltern sagen, es sei ihnen die grösste Freude, dass Ulla dazu gekommen sei, die Initiative zu ergreifen, dass sie so starke Ausdrucksmöglichkeiten zeige, dass sie im Laufe dieser Monate sich selbst erobert hätte.

Ihr Schwesterchen *Hedda* zählte bereits mit 1½ Jahren zu den Insassen des Hauses der Kinder. Wie selbstverständlich dieser

kleine Knirps sich zwischen den grösseren Kindern bewegt, wie die Kleine sich behauptet und auf ihrem Recht besteht, das ist wirklich ein Spass zu sehen: aber es ist noch viel interessanter dieses Kind bei der Arbeit mit dem Material zu beobachten. Von Anfang an wusste Hedda, was sie wollte; sie trug die Einsatzcylinder mit ziemlicher Anstrengung auf den Teppich und spielte damit fast den ganzen Vormittag, ohne sich stören zu lassen, ohne sich jemals durch die Vorkommnisse in ihrer Umgebung ablenken zu lassen. Jetzt beschäftigt sie sich schon mit einigen Farbentafeln, mit den rauhen und glatten Plättchen oder sie holt sich gar den Druckknopfraumen; oft baut sie den Turm oder die Treppe. Sie trägt genau wie die anderen Kinder ihr Stühlchen selbst ins Nebenzimmer und sie ist oft schneller im Verstehen, als manch älteres Kind. Sie wäscht sich Händchen und Gesicht selbst, sie staubt Gegenstände ab, sie hilft beim Decken oder Abdecken des Tisches. Ihre neueste Leidenschaft ist das Einsammeln der Frühstückstaschen nach dem Frühstück, und es ist rührend zuzusehen, wie sie bepackt, wie ein Packeselchen, jedoch so geschickt, dass sie niemals stolpert, oder unterwegs etwas verliert, ihre Last durch das ganze Zimmer bis zum Schränkchen trägt.

Im Sommer hielten wir uns, so viel es uns die oft zu stark niederprallende Sonne erlaubte, draussen auf dem Hofe auf. An schönen Tagen blieben wir stundenlang draussen; da war das Spielen in der Sandkiste das Hauptvergnügen. Nach einiger Zeit aber holte ein Kind nach dem anderen sich Tisch und Stühlchen heraus, und bald war auch hier draussen die gewohnte Arbeit mit dem Montessori-Material in vollem Gange.

Das Abwaschen und Abtrocknen der Frühstücksteller wurde auch draussen besorgt. Jetzt im Winter werden die Uebungen auf dem Strich, die Gleichgewichts- und die rythmischen Uebungen mehr zu ihrem Recht kommen. Unsere letzte Errungenschaft ist ein gemietetes Klavier, und an jedem Tag, gegen Ende des Vormittags, bitten die Kinder stürmisch um Musik für die rythmischen Uebungen. Wer im Hause der Kinder hospitiert hat, weiss, mit welcher Freude und Begeisterung die Kinder

bei diesen Uebungen sind. Für den Erwachsenen ist es ein grosser Genuss, zu beobachten, wie anmutig die Kinder sich bewegen, wie sie von einem Tage zum anderen besser dem Rhythmus und dem Takt folgen. Die Eltern beteiligen sich gern an dem Leben im Hause der Kinder; abwechselnd bringen die Mütter einen Vormittag bei uns zu; manchmal hospitieren auch Väter.

Die Eltern freuen sich an dem Glück und dem Gedeihen des eigenen Kindes und an der sichtbaren Förderung der ganzen kleinen Schar.

Seit dem 1. November führen wir in unserer Liste 42 angemeldete Kinder, und täglich sind 34-38 Kinder anwesend.

ELSA OCHS, *Leiterin.*

The Children's Home in Berlin-Wilmersdorf;

Notes from the leader's Diary.

The first fifteen children for the Montessori-school, that was about to be opened in February 1923, had previously sent in their names; they all appeared punctually at 9, accompanied by their mothers.

In the hall they exchanged their boots for indoor-slippers, put on their aprons and entered. The children and myself set to work. We experienced the feeling of solemnity, that marks the beginning of a task, but though we were conscious of this feeling, it was not expressed in words. At the time, I wrote in my diary: "I received each child on the threshold of our room, welcomed it and pointed out the hook, on which it was to hang its towel and the bag containing its comb and brush."

Even this was a matter of great interest to every child. After that I gave dusters to some of the children, brooms to others, and showed them how to employ these tools. Tables and chairs, tower and stairs were most carefully dusted and fixed, parts of the room were diligently swept. When the interest taken in these domestic labours began to abate, we sat down at the tables. The first thing to be done was to learn to sit down in the proper manner, to get up without making a noise and to sit down again gently, and to hold the chair in the required manner in getting up and in carrying it. Earnestly and diligently all this was practised by all the children together. A dirty little hand which Conrad was about to wipe on his apron was the occasion for the first lesson in washing hands. One of the small wash-stands was taken into the middle of the room, the washing-things were put back on it in their proper places and then the way of washing one's hands properly, was demonstrated.

At first all children looked on attentively, but towards the

end of the exercise voices were occasionally heard, saying: „I should like to have the playthings now.”

Soon the children began to busy themselves with the material. Quiet and order prevailed at this, although the children continually changed their occupations. After breakfast, they naturally took to their toys afresh and were thus occupied up to about noon. By that time the mothers turned up one after the other and watched the children practising to walk on the line and eventually little-ones as well as grown-ups were loth to go home.

Gradually the original number of 15 grew and by the end of May there were 32 and this number was maintained all through the summer.

From the very start the work with those children was easy. There was no necessity to enforce discipline, with the exception of a few cases, which, however, did not constitute any serious difficulty. The fine bright rooms, the pretty surroundings, the great freedom of movement, the possibility of constant variation in their occupation, all contributed to make the children happy and contented.

There was no chance of being bored or sad, and, if now and again in the case of a self-willed child, “pride lifted up the horn”, the astonishment of the other children was so great and apparent that hardly ever was any other corrective required.

Conrad, whose father is an artist, said one morning: “Father has come to-day to have a look at our beautiful rooms. He says, he wishes he could be as well-off as we are!”

During the first month we completed our establishment and each new piece of furniture that made its appearance was the occasion for a fresh burst of joy on the part of the children. To this very day they love every object in their Home.

Their mothers often say that at home the children will give them no peace, because they want to be taken to the Children’s Home again in the afternoon; and many of them can hardly wait till it is time to be off to school in the morning.

Juliane, who has been with us from the beginning, is still

bent on being the first on the spot in the morning, because she wants to have everything dusted and arranged before I arrive. The other day she brought me a 5 lire-note, which she had begged from her father, who lives in Italy, because we need money. For weeks she had kept this great secret all to herself.

These last few days I have repeatedly perused my diary in order to get a good idea of the work of recent months and the development of some of the children is most interesting to trace.

Miriam was vivacious from the beginning, full of initiative and originality. When a pail of water was upset on the first day, she jumped up, fetched a scrubbing-brush and mop and cleaned the floor as thoroughly as if it had been her daily work. And yet her inclinations point to activities of the senses and the mind, rather than to domestic work. In the last few months she has practised so thoroughly with the appliances, designed to develop the senses, that, although only $4\frac{1}{2}$ years old, she has a keener sense of observation than many a grown-up person. Her favourite pastime is dealing with the coloured tablets. For months together she has spent entire afternoons in pairing off 64 coloured tablets or in arranging them according to the shades, always trying to create new harmonies of colour or to decorate her white table in different ways with the combination of colours she obtained in this manner. A short time ago she utilised a little vase of Sweet-William as a centre-piece, round about which she arranged the coloured spools into a fine new pattern. By long practice, she is able to pick out of the 64 tablets the particular shade, which I show her just for a moment, and she does this after having executed all sorts of other tasks in the meantime. However, her performances in themselves are not the most interesting part, but rather the way in which her personality expresses itself. The other children feel greatly attracted to her, and like to join her while she is working; she is capable, not only of carrying them along with her in her enthusiasm, but gives one the impression that she raises the weaker children to her own level. Generally she undertakes difficult exercises, the execution of which requires a great deal

of time; every exercise is completed by herself and her little partner; then they dance joyfully round their finished task and finally everything is duly returned to its place. Miriam is always interested, always eager and always cheerful. Since her little brother has been with us as well, she looks after him in a careful and motherly manner.

Trude is a different child altogether. She is quiet, orderly and even-tempered. For months she has sat every day with her sister *Ursula*, at the same table and on the same little chair, and unhappy the children that tried to occupy their seats!

For months now, day after day, the two sisters have taken the cylinders out of the three blocks one after the other and reinserted them. Afterwards they occupy themselves with the colours and the geometrical insets and thus they have fairly systematically gone through the material for the exercises of the senses. *Trude's* sureness in recognising colours, sounds and shapes is perhaps still greater than that of *Miriam*. Grown-up visitors, also the students of the Montessori training-class, have observed with astonishment, how quickly and exactly *Trude* distinguishes a heptagon from an octagon and how she recognises all polygons at sight. When I strike a note on one of the tuning-bells and, after giving the child some or other task to perform, ask her to find the same bell in the 15 that are there, by striking them, it rarely happens that she is wrong even by so much as half a tone. Some time ago she began to touch the sandpaper letters, i. e. she touched them with her fingers. This again she did in her usual quiet and orderly way, only a greater vivacity was noticeable in her. The pleasure she took in the letters, the names of which she learned very quickly and without any difficulty, was so great that she always skipped lightly, when telling me the names of the letters or the syllables she had composed with them. And these last few days *Trude* has been forming words out of our movable alphabet, which seems to offer hardly any difficulties to her. Already she lays words with long vowels and doubled consonants. The other day she greeted me eagerly with the following remark: "Just fancy,



Part of an Elementary class of 22 children of 8—11 years in the "Amsterdam Montessorischool".



"THE HALL OF THE GUILDS" IN TITANIA'S PALACE.

"On a console table, found in Palermo, stand a solid gold bowl, enamelled and set with uncut diamonds, and an enamelled gold horse, both of which were obtained from Mandelay in 1886."

(See description in "Titania's Palace" in No. I of this Journal).

Miss O. ! Last night I dreamt I had filled the whole table with words, and there were some in which grown ups write *h* or *e*. You know what I mean, don't you? Words like *Wiese*. Isn't that funny?"

For three days now, *Beate* has joined her and there is a regular rivalry between the two, as to who can lay the greater number of words. When my stock of easy words was running out, and I could not think of new words, they hit upon the plan of laying the names of all the children, quickly too, lest one should snatch the name before the other had got it.

Hanno, who will be five next February, has also started tracing letters of sandpaper. One day lately he shouted excitedly "Miss O., making letters is jolly good fun." If you had known *Hanno*, as he came to us, a few months ago, you would not recognise him now. I can only say that there are frequent notices in my diary to this effect: „*Hanno* is again very troublesome" or again: „*Hanno* is very queer. He either hangs about and goes from one table to the other, without doing anything in particular, or he attaches himself to one of the other children and refuses to leave them alone. He is always sitting down with others, pretending to imitate the work they are at, but in reality hinders them from doing anything at all".

At the present moment the same *Hanno* is entirely independent and his selfcontrol leaves nothing to be desired.

One other boy I should like to mention. Up to a very short time ago, he was a typical mischiefmaker. Whenever he could he created a disturbance and was unruly; for ever so long he was unable even to attend to my calls and when I took him by the arm, and pointed out to him the results of his misdemeanours he merely winked his eyes and smiled at me. I took his interests to heart, spoke to his mother, tried to find out all about his health and habits. I began to understand a great many of his characteristics and requested his mother as much as possible to act in accordance with the principles of the Montessori-method in educating her child.

She readily agreed to my proposals. The other day she said

to me: "I can tell you there has been no need to beat our boy these 8 weeks; my husband too says he can distinctly see the difference it has made in his health. The general behaviour of the child has been changed absolutely. Not only has he become more quiet, orderly and active, but also more cheerful and contented. His contentedness finds frequent expression in little acts of tenderness, which he does very shyly.

Three-year-old *Marianne* is continually occupied with bucket, mop, and scrubbing-brush; every vacant nook she cleans with water and, with the greatest application and a serious face, she fulfils her self-imposed task, day after day.

Ulla was rather contemplative for some time; she was always considering and seemed to brood over things. For several weeks she used to take the cylinderblock or one and the same button-frame. Now she has become a brave little worker, moving about happily like the others, choosing her own work and, although only three years old, having a succesful go at the letters. The parents say they are ever so happy that *Ulla* should have developed so much initiative and be able to express herself in so many ways, that in the last few months, she had realised herself.

Her little sister *Hedda* has been an inmate of the children's Home ever since she was $1\frac{1}{2}$ years old. To watch the little mite walking about as a matter of course among the bigger children, asserting herself and insisting on her rights is a joke. Far more interesting, however, is it to observe the child playing with the material. From the very start, she knew exactly what she wanted: with a certain amount of exertion, she carried the cylinders to put them on the carpet and played with them nearly all the afternoon, without allowing her attention to be distracted and without troubling about anything that happened in her neighbourhood.

At present she already occupies herself with the colour-spools, with the rough and the smooth tablets, or even fetches the press-button frame: very often she builds the tower or the stairs. Like the other children she carries her own chair into

the sideroom and occasionally she is quicker at understanding things than the others. She washes her hands and face herself, dusts objects and assists in laying the cloth or in clearing it away. Her latest passion is to collect the breakfast-bags after breakfast and it is touching to see her, packed like any mule, carrying her load to the cupboard, without ever stumbling or losing anything.

In summer we stayed in the court outside, as much as the sun, beating down out there, allowed us to do. On fine days we stayed outdoors for hours; then the principal amusement was to play in the sand-box. After some time, however, one child after another fetched its chair and table and soon there, too, the usual work with the Montessori-material was in full swing.

Also the washing up and drying of the breakfast-things was done in the open. Now that winter has come the exercises in walking on the line, the equilibrium and rhythmical exercises will be more fully practised. Our latest acquisition is a hired piano and every day, towards the end of the afternoon, the children are urgent in their requests for music with the rhythmical exercises.

Every one who has attended the lessons in our Home, knows with what pleasure and enthusiasm the children take part in these exercises.

For grown-ups it is a great joy to observe how cheerfully the children move about and to see that from day to day they follow the rhythm more exactly.

The parents like to take part in the life at our Home: alternately the mothers spend a morning at our place; frequently fathers attend our work. The parents enjoy seeing the happiness and progress of their own children and at the same time are pleased to see how our little party is getting on.

Since Nov. 1st we have had 42 children on our lists and there is a regular attendance of from 34 to 38 children daily.

Question and Answer.

Question :

"Why should not the children be left free to make what use they like of the material?"

Answer :

Many people make this observation: "why should we oblige the child to use the material as we wish him to use it instead of leaving him free to use it as he wishes". For instance, many children use the cylinder blocks for a go-cart, many make bracelets of the frames of the geometric insets. I once even saw a child putting his feet into the circles.

Such people ask: "Are not you restricting the liberty of the child? Do you not prevent him putting these objects to many different uses? Uses which would evolve if you allowed the child to use the material as he wishes."

Certainly, the child might use the material in other ways, but that would be of no particular advantage. If the wooden tablet was to be used for putting the feet upon, it would be needless to make it with a rough and a smooth surface. And if the cylinder blocks were to be employed as a mail-cart it would be useless to have all these cylinders made in graduated sizes. And if the coloured spools were to be taken to build columns with, what would be the use of having them all different colours?

The question is not what use the object is to be put to, but whether or not we wish to use certain objects for the purpose of developing certain sensibility.

This purpose is to develop the potentiality of the eye and to gauge the difference in dimensions, and for this it is necessary to develop the patience to look at them.

Without doubt these exercises give the child powers he did not have before.

The same reasoning holds good with regard to all the objects used in practical life.

We might say: why should a certain place be used for eating, set apart for the purpose as it were? Why not eat on the floor? Why should our shoes remain on our feet, why not tie them round our necks with a string?

You might reply: but that is a different case, such a thing would not be practical and would not serve any practical purpose.

What is the purpose?

The purpose is to have a plate to eat off, and it is necessary to put it on the table and to use it for its required purpose.

How much trouble is taken to make shoes to protect our feet, and if they are not going to serve this purpose, why make them in that complicated way? Soup is to be eaten for the sake of nourishment, but if we throw it out of the window, it will not nourish us.

If this form of confusion in the use of objects denoted true liberty, those people at present confined in our asylums would be the really free!

The only thing the teacher has to do with regard to the use of these objects is to see that they are used for their proper purpose. These exercises are within such limits as might be called the limits of ordinary use. And within these limits of the precise use the child may be left to himself and to his errors. The child left to himself in his attempts and his efforts corrects his own errors himself, and by making mistakes and doing the same exercises over and over again and correcting his mistakes, his eye comes to see into a larger world, a world of dimensions and colours not seen by him before. If, however, the error consists in a mistaken use of the objects, for instance in rolling or throwing them about, the colours will be spoilt, and this is a mistake which can never lead the child to perfection.

There is the kind of error which leads one to see that one has made a mistake, and one learns to correct this error.

And there is another kind of error or mistake, which can only lead us farther and farther from the right path.

It is not the error in itself which decides for good or ill, it is the path of order, or the path of disorder, the path of perfection or the path of vanity; objects wrongly used and acts wrongly done may lead to what we are accustomed to call vice; it is the vicious use, the use which does not serve its true purpose. And thus we distinguish the real purpose from the false.

If we drink, not because we are thirsty but just to create a sensation, that is a vice.

Maria Montessori.

Echos de nos Ecoles et de la famille.

Un garçon parlait de quelque chose qui était d'un noir très foncé.

„Ce n'est pas juste" dit son frère (d'environ 5 ans et demi). On „peut dire : un gris très foncé, mais il n'existe qu'un seul noir, „ainsi qu'un seul blanc".

A 5 ans, il avait une fois son tapis plein de tablettes de couleurs-graduées.

Je lui demandai : „donne-moi des bleus très foncés, donne-moi des roses très clairs, etc."

A la fin du jeu, lorsque je demandais : „Donne-moi des jaunes très clairs", il répondit : „je n'en ai plus". Impossible qu'il ne les eût pas vus, car il ne restaient que quelques tablettes sur son tapis.

Je dis „j'en vois encore, moi!". Il me répondit, „moi pas!".

Je les lui indiquai : „Oh", dit-il, „mais je n'appelle pas cela du jaune, c'est trop verdâtre, j'appelle ça du vert très, très clair!"

En vérité, il avait raison, les jaunes clairs s'étaient décolorés un peu.

Maintenant, à 9 ans et demi, ils' occupent des „limites" plus spirituelles.

De son ami, qui n'est pas un bon travailleur il disait : „c'est dommage pour lui, car il ne connaît pas la joie de faire quelque chose *aussi bien que possible*."

Un des moments les plus intéressants à observer dans l'école Montessori est celui où l'enfant se dégage de la matière pour se transporter dans une réalité abstraite. Il découvre alors les qualités propres aux objets qui l'entourent.

Quelques enfants d'environ 4 ans et demi avaient travaillé avec les emboîtements géométriques et appris les noms de carré, de rectangle, de cercle, etc. Après s'en être occupés pendant quelques semaines, d'autres matériels captivaient leur attention. Un jour pourtant une leçon était donnée à une fille sur les noms des figures géométriques ; un petit groupe, formé par ceux qui s'en étaient occupés avant, y assistait comme spectateurs.

Tout à coup un d'eux s'écria : „regardez, le panier aux papiers est également un cercle". „Le séchoir est un rectangle", dit un autre. „Et cette gravure est carrée". C'est ainsi que tout l'entourage était considéré par les enfants sous le jour des formes géométriques des objets. La joie d'avoir découvert ces rapports était grande. „Ceci est le plus petit cercle qui soit ici" dit enfin Méta, en montrant un confetti qu'elle apercevait sur le plancher.

Cependant la petite fille qui venait d'apprendre pour la première fois les noms, continuait tranquillement son travail sans sentir le moindre besoin d'appliquer à son entourage ses connaissances nouvellement acquises.

Elly, âgée de 5 ans était occupée à entasser les uns sur les autres un grand nombre de cartes de visite rectangulaires. Tout à coup elle s'écrie, surprise. „Regarde, voilà un prisme !"

Jan, âge de 5 ans, a fait bien des additions et déductions, aidé par les files des perles. On lui donne à résoudre toute une série d'exercices de calcul et (sans se servir de ses doigts), il les résoud par coeur. Soudain, joyeux, il s'écrie : Je ne sais pas comment je m'y prends, mais je n'ai plus besoin des perles.

Il semble que bien des parents dont les enfants visitent une école Montessori font l'expérience que ceux-ci, dans les premiers temps ne racontent que très peu de choses ou rien de ce qui se passe en classe. Souvent les mères se demandent quelle est la cause de ce silence.

Par hasard un événement en soi sans importance nous fournit en partie par les enfants mêmes l'explication psychologique de ce fait.

Deux mères, habitant de différentes villes, ayant toutes deux un enfant dans une école Montessori, séjournaient avec leurs enfants à la campagne.

Toutes deux s'étaient rendues compte de ce que jamais les enfants ne parlaient de ce qui se passait à l'école. Tout au plus elles étaient mises au courant des travaux de ménage, tels que balayer, frotter, etc., mais jamais elles n'entendaient parler des matériels Montessori.

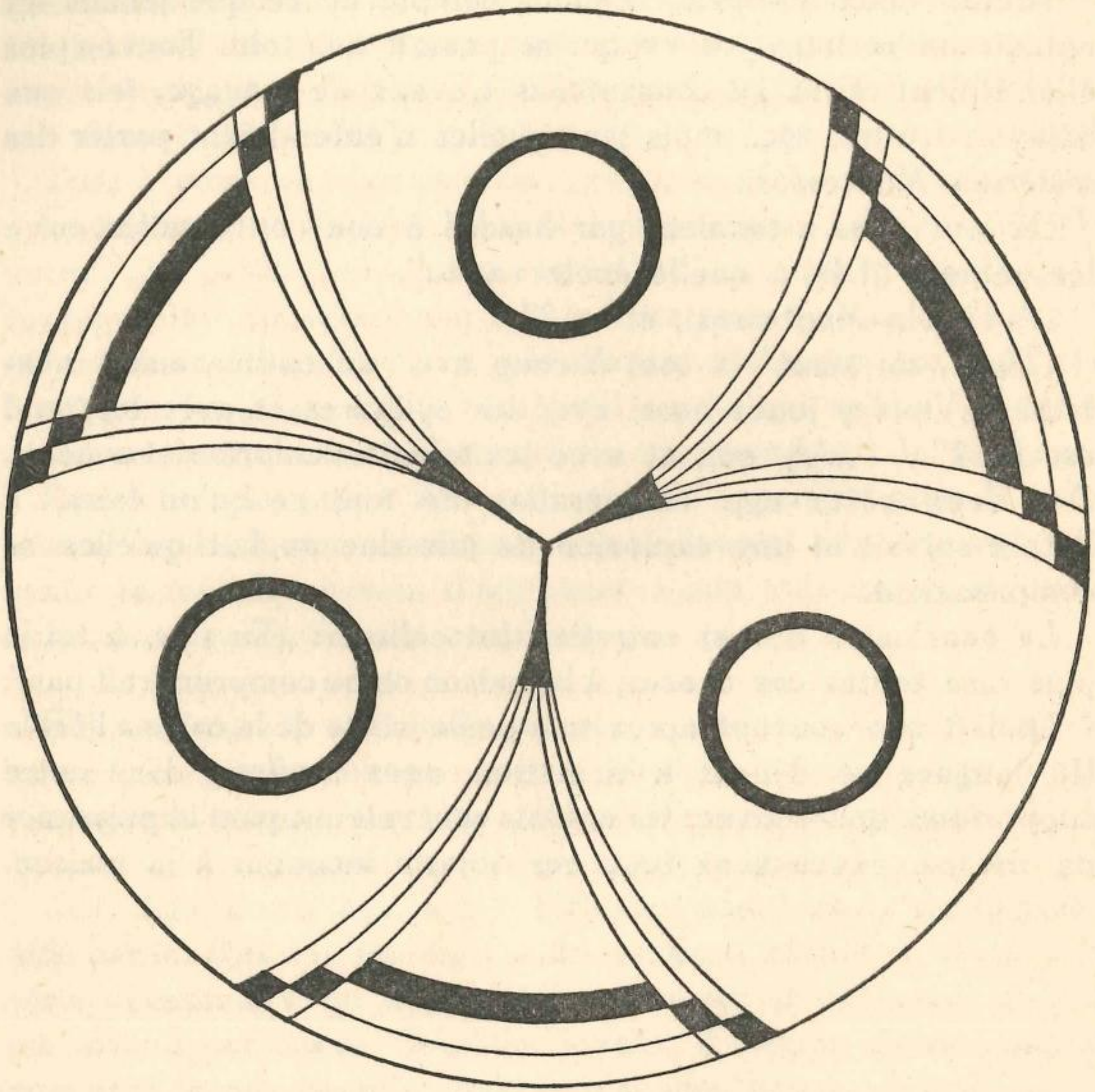
Un jour elles assistaient par hasard à une conversation entre les enfants „Dis, à quelle école vas-tu”.

„A l'école Montessori, et toi?”.

„Tiens, toi aussi” et tout à coup avec un enthousiasme inhabitué: „Vous y jouez aussi avec les cylindres et avec le grand escalier?” — „Ah, oui, et avec les tablettes colorées et avec...” Des deux côtés une énumération de tout ce qu'on faisait à l'école suivait et une explosion de joie due au fait qu'elles se comprenaient.

La conclusion de cet entretien fut celle-ci: „Tu sais, à toi je puis dire toutes ces choses, à la maison on ne comprendrait pas”.

Le fait que souvent après une seule visite de la mère à l'école les langues se délient à la maison, nous confirme dans notre supposition que souvent les enfants sont retenus par l'impuissance de décrire exactement tous ces objets inconnus à la maison.



Geometrical drawing by a 10 year old pupil of the "Amsterdam Montessori School".

The Montessori Movement in Holland

The first decennary of the Montessori movement in Holland being nearly past, we can celebrate this fact by looking back on what has been achieved in these ten years.

In the spring of 1914 Dr. Montessori lectured in The Hague at the "Congress for Pedagogy," and in the same year Mrs. J. J. Werker, encouraged by Mrs. Siewerts van Reesema, attended the training course at Rome, and opened the first Montessori school in Holland in September 1914.

At the present time, in 1924, there are private and public Montessori schools in Amsterdam, Amersfoort, Arnheim, Bilthoven, s'-Gravenhage, Haarlem, Hoorn, Utrecht, Rotterdam and Zaandam, and in the first eight of these also Montessori Elementary Schools. In Holland the preparatory schools are quite separate from the Elementary Schools, the former being for children of three to six years of age, and the latter for children of six to twelve years of age. Then follow Secondary Schools for pupils of twelve to seventeen, after which comes the University.

Several special schools for the Montessori method have been built in our country. Two of the public schools in The Hague have a building of this kind, and in Amsterdam a public school with six rooms will be finished in the winter of 1924 according to Dr. Montessori's own plan, and in Haarlem such a school (for one elementary and three preparatory classes) was opened by Dr. Montessori herself during the training course she gave in the autumn of 1923. All these classes are led by trained directresses, who have been either at the International course conducted by Dr. Montessori personally, or to one of the bi-annual training courses at The Hague or Amsterdam. These last were started during the war because teachers were badly needed.

Besides all these neutral schools there is a Protestant and a Catholic Montessori school.

After an experiment made with the Montessori method in one of the public schools at Amsterdam, a committee of three delegates was sent by the Municipality to the International Course in London in 1919. Their report was extensive; and it was strongly recommended to continue the experiment and to give the Montessori method a fair trial. After this the Town Council granted leave to nine public school teachers to enable them to take the training course at Amsterdam; seven of these were given charge of Montessori classes at the end of their training. Further, 34 teachers were allowed by the Town Council to attend the 4 months' course given by Dr. Montessori at Amsterdam. Other teachers were also sent to this course from Rotterdam and Utrecht.

The Town Council of The Hague had already in 1918 granted leave to several teachers for the same purpose; and these were also placed in leadership of four Montessori classes. In the ensuing years another municipal school was founded.

Three years after Dr. Montessori's first visit to The Netherlands, "The Dutch Montessori Society" was founded (in 1917), and now there are branches at Amsterdam, Amersfoort, Arnheim, Bilthoven, 's-Gravenhage, Haarlem, Hoorn, Utrecht, Rotterdam, Schiedam and Zwolle.

A Christian Montessori Society followed in 1922.

The Statutes of the first describe its aims as follows:

Art. 2. The Society aims at promoting pedagogy and education according to the principles of Dr. Montessori.

The Society also endeavours in its organisation and method of work to carry out the principles of Dr. Maria Montessori with absolute tolerance of the scientific, political and religious convictions of others.

The Society has founded a three-weekly paper to further strengthen the connection between all Montessorians in Holland, and to propagate knowledge of the method; this is the official organ of the Society. It has also taken the initiative for the two

training courses above mentioned. The translation of "l'Auto Educazione delle scuole elementari", Part I., has been completed.

Conferences of the committees of the schools have been organised, and representatives meet regularly for the purpose of discussing the interests of the schools.

In the same way the Montessori teachers also come together in order to talk over the didactic and theoretical aspects of the method.

One of the Society's most important acts was to plead for liberty for the method in the Elementary Education Act of 1920. This effort was crowned with success, so that in par. 25, sub. 5, provision has been made for dispensing with teaching according to a time-table.

Further, Art. 158, sub. 7, of the same act provides for the possibility of special normal schools being provided with a State subsidy where teachers for the schools according to art. 25 sub. 5, might be trained.

As far as we know Holland is the only country where as yet the legislation is so favourable to the Montessori education.

The same request was made concerning the "Bill on Secondary Education."

In 1922 the Society appointed a Committee to study aims, whose task it was to investigate the Scientific meaning of the method, and to determine the terminology for these new psychological ideas.

Dr. Montessori's second visit to Holland took the form of a three days' conference, organised by the Dutch Montessori Society, in the Aula of the Amsterdam University. More than 600 men and women from all parts of the country were present at these meetings; besides representatives of the Minister for Education, Prof. Dr. Ph. Kohnstam (Prof. of Pedagogy) and Dr. J. C. L. Godefroy spoke words of welcome, and several town councils showed their interest by sending a delegate.

The Minister for Education invited the Dottoressa to a private audience, and promised to give the method a fair chance of development. This promise has been fulfilled in the recent

revision of the Act as mentioned above. At the same time a new inspectress of the Government Preparatory schools was appointed, who, having had personal experience of the method, can be a great help towards a better understanding of the same in the teaching world.

Dr. Montessori's third visit to our country took place in October 1922, following an invitation given by several scientists. Together with the Dottoressa they visited the private Montessori school in Amsterdam, and discussions followed which cleared up many a misunderstanding.

Of Dr. Montessori's books "The Montessori Method" and "Self-development" have been translated into Dutch.

And further, in Holland as in most of the countries where the Montessori method is known, numerous articles have been written and pamphlets published for and against this method. With the exception of a few recently published, most of them bear the same stamp, namely, that of coming from the hand of persons who each describe the method according to his own idea of it as derived from the books, but without having studied it in practice. Consequently Holland, as will be the case with most other countries, is still without any extensive trustworthy Montessori literature.

Dr. Montessori's fourth visit to the Netherlands — thanks to the assiduity of several persons who, as on former occasions, succeeded in overcoming all obstacles — was for the purpose of holding a training course for future Montessori teachers and others interested. This course lasted from 1 Nov. '23 to 15 Febr. '24. Eight evening lectures of this course were devoted to general pedagogical subjects, and were also open to a certain number of parents.

Besides three lectures per week given by Dr. Montessori herself, the students following the course — about 130 in number — attended a course, where they worked with the material two afternoons per week, and which was conducted by Miss A. MacAlpine Pyle and Miss C. Tromp, as Dr. Montessori herself lacked time for this. Much earnest work was accomplished and

ground covered at those meetings. Further there were lectures on biological subjects given by Dr. Ae. Droogleever Fortuyn and Mr. F. Portielje, and on psychology by Prof. Dr. G. Révész and Dr. J. C. L. Godefroy.

Many who, in spite of the illuminating addresses by Dr. Montessori were unable to believe without visible proof, gained great confidence in the method from seeing it put into practice, especially in some classes of the Municipal schools, (classes with a large number of pupils) which were also much praised by Dr. Montessori.

Besides the pedagogical interest we may note with gratification that several biologists and psychologists in our country are becoming interested in the Method.

In Nov. 1922 Holland had the advantage of Signorina Maccheroni's presence in this country, who for the space of a year stayed at the Montessori school at Amsterdam, and who, with her long experience of elementary education, as well as her clear insight into difficult questions, proved of valuable assistance.

So, while still having many difficulties to overcome, our country has a good chance to realise Dr. Montessori's beautiful ideal.

Part of this ideal is the founding of a Centrum, in which aim we will gladly co-operate, convinced as we are that it is necessary to possess a scientific institute as a link between Montessorians in every country, who are labouring for the further development of the method, and the safe-guarding of its application along purely Montessorian lines all over the world.

From the introductory address

given by Sir James Crichton-Browne, J. P., M. D., LL. D. at the
Montessori Conference, Wembley Exhibition on 9th. May 1924.

"As a hen gathereth her chickens under her wings, even so has England at this time assembled here under the most genial and affectionate conditions, representatives of her children from her far-scattered dominions, and the alacrity with which her children have come here, and the intelligence, energy and ingenuity these children display in the work they have brought with them to the Exhibition are due, I do not hesitate to affirm, to the fact that these children have been reared under Montessori methods.

In her dealings with her offspring beyond the sea, England has not resorted to ancient pedagogic methods. She has not insisted on mechanical obedience — she discovered the futility of that in connection with her American colonies one hundred and fifty years ago, and has never tried it on again — but she has everywhere combined freedom with guidance and has encouraged self-realisation just as is done in the Casa dei Bambini. Like Dr. Montessori, she has exercised patience and faith, and fostered independence, and so her descendants have grown up around her and around the world vigorous and self-reliant, with divers gifts and attainments, but true to type, and united to her and amongst themselves by inalienable bonds of family affection, which should always, other things being equal, involve a legitimate preference."

"The special branch of the New Education with which we are concerned at this hour — the Montessori method — foreshadowed in many lands, but emanating from Rome in its effulgence, will not, I believe, be new to our visitors, for that method has, with a rapidity that betokens great inherent energy, spread round the globe and has, I have no doubt, already

become acclimatised in Canada, Australia, New Zealand, the Cape and India. I say acclimatised, because I have always held that the Montessori method must be subject to modification in accordance with its geographical distribution."

"Our programme restricts our consideration of the Montessori method this evening to the Training of the Senses, and that is, I need hardly say, a very partial view of it. The Montessori Method really includes the whole child, in all its relations and activities."

"It was, however, in connection with the training of the Senses that the Montessori method was first evolved, and that is, I suppose, why it has been specially selected for our discussion. Montessori, the founder of the method, the only woman who can as yet, as an educational leader, rank with Rousseau, Herbart, Pestalozzi, Arnold I. Froebel, a woman animated by a tender and voluminous love of children, began her studies in the training of idiots under the inspiration of Seguin, and in the case of idiots it is only through the laborious cultivation of the senses that the darkened intellect can be reached, and any glimmerings of intelligence stirred up. She was for several years Director of the Asylum for the feeble-minded in Rome, and there she became acquainted with those physiological means and instruments found efficacious by Seguin in the development, more or less, of the dynamic, perceptive, reflective and spontaneous functions of idiots and imbeciles."

"To penetrate the glassy or tarnished eye of our pupil," said Seguin, "we keep the child seated or standing in front of us alone, no noise, no company, not much of light nor of darkness, our feet ready to immobilize his feet, our knees his knees, our hands his hands. We search his eyes with our intense and persevering look, he tries to escape it, throws his body and limbs in every direction, screams and shuts his eyes. How long will it take to succeed? Days, weeks or months, it depends upon the gravity of the case, upon the help received from the general training and from other means of fixing the attention of the eye."

"Is it worth while, one may ask, to expend so much time

and pains on what is, after all, such an insignificant result as fixing the idiot's eye? You cannot expand "the straitened forehead of the fool", or do more than slightly mitigate his folly, but however that may be, Seguin's elaborate experiments have indirectly in the hands of Montessori borne admirable fruit. It occurred to her that Seguin's methods were applicable to the education not only of idiots but of children generally, and selecting young children three to six years of age, who are mental deficient in relation to children of older growth, she obtained in them an encouraging response to her trials. Following closely in Seguin's footsteps, she at first at any rate employed most of the instruments of teaching which he enumerated: pictures, photographs, cards, patterns, figures, wax, clay, scissors, compasses, pencils, books, spades, wheel-barrows, the watering-pot, the wooden horse, the hammer, the ball.

Sixty years have elapsed since Seguin wrote, Science has advanced, and Dr. Montessori, who has had the advantage of a thorough scientific training, has been able vastly to improve the apparatus and the mode of their employment.

Much of the material used in the education of the mentally deficient has been abandoned in the case of the normal child. Elaborate experiments have been carried out. There may be differences of opinion as to the proper order and relative value of certain sensory exercises, some of them may be thought superfluous in an ordinary wide-awake child, but there can be nothing but approval — from a psychological point of view — for Montessori's general scheme. One follows with interest and appreciation the ingenuity and resource shown in her training of common sensibility, of the tactile, thermic, baric, stereognostic senses, her education of the sense of vision, as regards differential vision perceptions, and chromatic impressions, of hearing as regards the discrimination of sounds and the sense of rhythm, and of taste and smell. It is claimed for Montessori's training of the senses, I believe with some justice, that it contributes to the quick and easy mastery of the elements of reading, spelling, writing and arithmetic.

The Montessori method in its broadest sense is Nurture, and as you are all aware there has been and is much controversy as to the relative parts played by Nurture and Nature in the make-up of the human being. Montessori is a scientist and does not ignore genetics nor the profoundly dominant influence of inborn qualities, but her aim has been by environment to make the best of these inborn qualities, to evoke and strengthen those which are of good repute, and to starve and curb those which are evil. She has done much to discredit the dismal doctrine of hereditary predestination. Her only contribution to Eugenics, in which I am a profound believer, is that by rearing healthy well-balanced men and women in whom the moral sense and religiosity have been early stimulated and diligently tutored, she has increased the probability that when the time comes they will mate wisely, with a due regard to what they owe to themselves and to their kind, and will exercise self-control in the avoidance of hereditary disease.

Hitherto, according to Weisman's theory of the continuity of the germ plasm — a theory so generally accepted by men of science — Montessori operations must have been held to influence only the individual to whom they are applied, without any effect on the next or any succeeding generation. There is, we have been assured, no transmission of acquired habits or traits, nothing counts but inborn qualities. Whatever we do for the individual perishes with him. Parents are mere carriers with no say in the constitutions of their offsprings.

But a new era seems to be dawning, or rather an old era seems to be coming back again with new illumination. It seems that we are reverting to Laplace, to Darwin and Pangenesis. Recent experiments have demonstrated that acquired habits may be transmitted, and that Montessori training of the senses, which we are considering, may prove helpful to the children of the children on whom it is bestowed.

Pavlov, that great Russian Physiologist, has shown that, by functional exercise, certain changes may be stamped on the nervous system and become hereditary. He trained a group of white mice

to run to their feeding place on the ringing of an electric bell, and found that 300 lessons were in the first instance required to accustom the mice to run to the feeding spot when they heard the bell ring. But in mice bred from the mice thus trained, a much higher aptitude was displayed, for only 100 lessons were necessary to secure the same result. The third generation required only 30 lessons, and the fourth only 10. The last generation on which Pavlov has reported learned their lesson after only 5 repetitions, and he has hopes that the sixth generation, or one still later, will run to the feeding place on the first occasion of hearing the bell.

Very significant and hopeful are these experiments in relation to the influence of training, education, discipline in moulding and modifying the higher nerve centres. Very encouraging should they be to Montessori and her disciples, who may pursue their labours feeling that they are conferring benefits more far reaching than they had hitherto believed, and are benefiting the race as well as the individual child.

I have detained you too long by these introductory and very desultory remarks, and I would close them by expressing what I am sure you all feel, gratitude to Montessori, for the lead she has given us in improved methods of elementary education, in eliminating from it austere and cramping customs, and in infusing into it happiness and spontaneity. Her system is an expansion and evolution of motherhood, it is sympathy and intuition, operating in the light of science." ¹⁾

¹⁾ The lecture given by Sir John Cockburn, K. C. M. G. M. D., to which the above address was an introduction, will appear in the following number.

Literatur

G. A. Jaederholm, Några ord om Montessorimetoden.

Im Anschluss an eine Besprechung der ersten Nummer des „Call of Education“ veröffentlicht Prof. Jaederholm in Göteborg in der „Pedagogisk Tidskrift“ einen Artikel, in dem er seinen Standpunkt zur Montessori-Methode klarlegt.

Nach seinem Aufsatz, sind die Ideen Montessoris in Schwedens pädagogischen Kreisen noch wenig bekannt; seit dem letzten grossen Aufschwung, der Verwirklichung der körperlichen Erziehung in den Volksschulen, befinden sich die Erziehungspläne Schwedens auf einem relativen Stillstand. Prof. Jaederholm bemüht sich in seinem Aufsatz zu beweisen, dass in Montessori-Schulen erzogenen Kinder nicht übermüdet werden. Er knüpft seine Ausführungen an einen, im März im „Svenska Dagbladet“ erschienen Artikel Dr. Brandells über Montessori an. Dr. Brandell missversteht den Montessori Gedanken. Er vergleicht die geistigen Anforderungen einer M.-Schule mit denen Basedows, der seine Kinder dressierte mit 6 Jahren 4 Sprachen zu sprechen. Eine Übermüdung der Kinder in einer M.-Klasse besteht nicht, weil die Kinder selbst die Art und Länge ihrer Arbeit und die Arbeitspausen bestimmen, ihre geistige und körperliche Arbeitskraft sozusagen automatisch regulieren. Nicht nur die Methode, sondern auch der ganze Betrieb der M.-Schulen ist so eingerichtet, dass nicht nur keine Übermüdung, sondern sogar keine sichtbare Ermüdung eintritt.

Jaederholm berichtet kurz über die Entstehung der Ideen Montessoris, ihrem Aufbau auf Séguins Methode und ihre Verwirklichung in der „Casa dei Bambini“. Er berichtet ferner über die ersten Versuchen an neuropathischen Kindern. Es ist nicht anzunehmen, dass eine „ermüdungstiffende“ Methode gerade

bei mit geringer Leistungsfähigkeit begabten Kindern zu solchem Erfolg führen hätte können.

Am Schluss seiner Ausführung wünscht Prof. Jaederholm, dass auch bald die schwedischen Volksschulen einen Teil der Schulzeit dem Kinde zu seiner freien, unbehinderten, jedoch durch feste Principien geleiteten Selbsttätigkeit im Sinne Montessoris lassen sollen.

Er begrüsst herzlich das Erscheinen unserer neuen Zeitschrift und rät sie den schwedischen Pädagogen wärmstens an.

THE CALL OF EDUCATION

Edited by Dr MARIA MONTESSORI

with the Co-operation of

PROF. Dr. GÉZA RÉVÉSZ and Dr. J. C. L. GODEFROY.

Sub-Editors :

Mrs. P. Smart, *America*; Miss L. E. Roubiczek, *Austria*; Comtesse V. Sforza, *Belgium*; Dr. Christo Neguentsov, *Bulgaria*; Prof. A. Franca, *Brazil*; Dr. Hiang-Kan-Hu, *China*; Mrs. Sheila Radice; C. A. Bang, O. B. E., *England*; Mlle M. Cromwell, *France*; Dr. F. Hilker, *Germany*; Prof. M. Fancello, *Italy*; Mme C. d'Ergin Caterinici, *Roumania and Greece*; Dr. Juan Alzina; R. Araluce, *Spain*; Prof. Ad. Ferriere; Mlle Bontempi, *Switzerland*.

It is intended to issue 4 numbers of the periodical yearly, each containing about 50 pages.

The Contents will fall under the following headings :

1. Scientific Articles.
2. The Psychology of the Child ; observations of development.
3. Practical help to teachers.
4. Results in the Schools.
5. Replies to questions on the Montessori Method.
6. Articles on social problems in the light of the method.
7. International News of the Movement, Statistics, etc.
8. Literature and art for children, etc.
9. Contributions from the children (drawings, compositions, etc.)
10. Illustrations.

Editorial Communications should be addressed to the Central Editorial Office:

Roemer Visscherstraat 14, Amsterdam, Holland,
or to the editors :

Prof. Dr. G. Révész, Keizersgracht 283, Amsterdam; Dr. J. C. L. Godefroy, Roemer Visscherstraat 14, Amsterdam.

Writers of published articles are alone responsible for opinions therein expressed.

Copyright for all articles reserved.

Annual Subscription (payable strictly in advance) Post free :

Great Britain, France, Italy, Spain	10 sh.
Holland	f 5.50
Dutch India	6.—
U. S. A., Canada and S. America	\$ 2.25
Other Countries	10 sh.
Single copies	3 sh.

Remittances, changes of address, complaints, etc. should be sent to the *Administration*: R. van Mill, Willemsparkweg 151, Amsterdam, Holland.

Copies lost in transit will not be replaced free of charge, unless lost through the fault of the publishers.



Internationale Zeitschrift für Individualpsychologie

ARBEITEN AUS DEM GEBIETE DER PSYCHOTHERAPIE,
PSYCHOLOGIE UND PÄDAGOGIK

HERAUSGEGEBEN VON

Dr. ALFRED ADLER (Wien)

Preis des Jahrganges 3 Dollar

Administration: Dr. ZILAH, WIEN, III. - HAUPTSTRASSE 49.

AUS DEM INHALT DES II. JAHRGANGES :

ADLER, Fortschritte der Individualpsychologie. — Fragebogen zum Verständnis und zur Behandlung schwer erziehbarer Kinder. — SEIF, Über den Zwang im Leben und in der Neurose. — I. V. CHASSÉ, Das nervöse Kind. — SCHULHOF, Zur Psychologie Strindbergs. — F. WILKEN, Individualpsychologie und Wirtschaftsbetrieb. — W. NUTTAL, Occupational Psychology and Fatigue. — O. SCHWARZ, Sexualpsychologie, etc.